

**“A STUDY ON COMPARISON OF LATE PRETERMS  
AND TERM NEONATES IN TERMS OF NEONATAL  
MORTALITY AND MORBIDITY”**

*Dissertation submitted in partial fulfilment of the  
Requirement for the award of the Degree of*

**DOCTOR OF MEDICINE - BRANCH VII  
PAEDIATRIC MEDICINE**

**APRIL 2015**

**TIRUNELVELI MEDICAL COLLEGE HOSPITAL**



**THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY  
CHENNAI ,  
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## **CERTIFICATE**

This is to certify that the Dissertation entitled “**A STUDY ON COMPARISON OF LATE PRETERMS AND TERM NEONATES IN TERMS OF NEONATAL MORTALITY AND MORBIDITY**” submitted by **Dr. Krishna Suresh, M.B.B.S** to The Tamilnadu Dr. M.G.R. Medical University, Chennai, in partial fulfillment for the award of M.D. Degree (Paediatrics) is a bonafide work carried out by her under my guidance and supervision during the academic year 2012-2014. This dissertation partially or fully has not been submitted for any other degree or diploma of this university or other

**Prof.Dr.NANDHINI KUPPUSAMY MD.,    Prof.Dr.M.GEETHANJALI MD.,**

Unit Chief, UNIT III,

Professor and HOD,

Department of Paediatrics,

Department of Paediatrics,

Tirunelveli Medical College,

Tirunelveli Medical College,

Tirunelveli - 627011.

Tirunelveli - 627011.

**The Dean,**

Tirunelveli Medical College,

Tirunelveli - 627 011.

## **DECLARATION**

I, **Dr. Krishna Suresh, M.B.B.S**, solemnly declare that the Dissertation titled “**A STUDY ON COMPARISON OF LATE PRETERMS AND TERM NEONATES IN TERMS OF NEONATAL MORTALITY AND MORBIDITY**” has been prepared by me under the expert guidance and supervision of **Prof.Dr.C.KRISHNAMURTHY MD.**, Professor and Unit Chief Department of Paediatrics, Tirunelveli Medical College, Tirunelveli.

This dissertation is submitted to the Tamilnadu Dr. M.G.R. Medical University, Chennai, in partial fulfillment of the regulations for the award of MD Degree Branch VII (PAEDIATRICS).

It was not submitted to the award of any degree/diploma to any University either in part or in full previously.

Place: TIRUNELVELI

**Dr. KRISHNA SURESH M.B.B.S,**

Date:

POST GRADUATE,

M.D.PAEDIATRICS,

TIRUNELVELI MEDICAL COLLEGE HOSPITAL,

TIRUNELVELI.



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91-462-2572733-EXT; 91-462-2572944; 91-462-2579785; 91-462-2572611-16  
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NAME OF PRINCIPAL INVESTIGATOR: Dr. Krishna Suresh

DESIGNATION OF PRINCIPAL INVESTIGATOR: Resident in Paediatrics

DEPARTMENT & INSTITUTION: Department of Paediatrics, Tirunelveli Medical College

*Dear Dr. Krishna Suresh, The Tirunelveli Medical College Institutional Ethics Committee (TIREC) reviewed and discussed your application during the IEC meeting held on 28.12.13.*

### THE FOLLOWING DOCUMENTS WERE REVIEWED AND APPROVED

1. TIREC Application Form
2. Study Protocol
3. Department Research Committee Approval
4. Patient Information Document and Consent Form in English and Vernacular Language
5. Investigator's Brochure
6. Proposed Methods for Patient Accrual Proposed
7. Curriculum Vitae of the Principal Investigator
8. Insurance /Compensation Policy
9. Investigator's Agreement with Sponsor
10. Investigator's Undertaking
11. DCGI/DGFT approval
12. Clinical Trial Agreement (CTA)
13. Memorandum of Understanding (MOU)/Material Transfer Agreement (MTA)
14. Clinical Trials Registry-India (CTRI) Registration



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1. The approval is valid for a period of 2 year/s or duration of project whichever is later
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Tirunelveli Medical College, Tirunelveli - 627011  
State of Tamilnadu, South India



Dr.V.Ramasubramanian MD DM  
Member Secretary, TIREC  
Tirunelveli Medical College, Tirunelveli - 627011  
State of Tamilnadu, South India

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A STUDY O COMPARISON OF LATE PRETERM AND TERM IN TERMS OF

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### ABBREVIATIONS

AGA	-	Appropriate for Gestational Age
SGA	-	Small for Gestational Age
LGA	-	Large for Gestational Age
GDM	-	Gestational Diabetes Mellitus
PIH	-	Pregnancy Induced Hypertension
PROM	-	Premature Rupture of Membranes
LN	-	Labour Naturalis
LSCS	-	Lower Segment Caesarean Section

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## **ABBREVIATIONS**

AGA	-	Appropriate for Gestational Age
SGA	-	Small for Gestational Age
LGA	-	Large for Gestational Age
GDM	-	Gestational Diabetes Mellitus
PIH	-	Pregnancy Induced Hypertension
PROM	-	Premature Rupture of Membranes
PPROM	-	Preterm Premature Rupture of Membranes
LN	-	Labour Naturalis
LSCS	-	Lower Segment Caesarean Section
IUGR	-	Intrauterine growth restriction
IDM	-	Infant of Diabetic mother
SIDS	-	Sudden Infant Death Syndrome
RDS	-	Respiratory Distress Syndrome
IVH	-	Intraventricular Hemorrhage
DIVC	-	Disseminated Intravascular Coagulation
APH	-	Antepartum Hemorrhage
NICU	-	Neonatal Intensive Care Unit
BPD	-	Broncho Pulmonary Dysplasia
ROP	-	Retinopathy of Prematurity

# **ABSTRACT**

## **OBJECTIVES**

- To compare the mortality and short term morbidity pattern of late preterm with that of term of term neonates.
- To identify the etiologies associated with late preterm deliveries and their association with morbidity and mortality.

## **METHODOLOGY**

This was a prospective study conducted in the Department of Paediatrics, Tirunelveli Medical College, Tirunelveli over a period of 6 months from January 2014 to June 2014.

All consecutively born babies delivered in Tirunelveli Medical College Hospital with gestational age above 34 weeks during the study period was divided into two groups

1. All the late preterm infants
2. The term neonates.

The infants were followed up in the maternity ward or in the neonatal intensive care unit until hospital discharge.

Data were collected from the mother's and infant's medical records with additional information collected using a structured form. The gestational age assessment was done at birth and all the late preterms were admitted as per our institutional protocol. The term and late preterm babies were compared for the incidence of any morbidities like perinatal

asphyxia, hypoglycaemia, respiratory distress, hyperbilirubinemia, apnea, culture positive sepsis and feeding difficulties and deaths and their causes. Late preterm births were classified based on the presence or absence of any etiologies into 1.those following PROM, 2. indicated preterm births (PIH, Oligohydramnios, Multiple pregnancy, APH, Anemia, chorioamnionitis, GDM, previous preterm births, family history of preterm delivery) 3. Spontaneous deliveries and the association between morbidities and mortality with the etiology of late preterm birth was analysed.

## **RESULTS**

There were 1540 live births in Tirunelveli Medical College during the study period. Of which 230 (14.93%) were born late preterm and 1004 babies (65.1%) were born term. Late preterm births accounted for 43% of all the preterm births. Of the the total live born babies 210 late preterm and 953 term babies were included in the study. 188 out of 210 late preterm babies had atleast one of the neonatal morbidities (89.5%). In the study 12.85% of the late preterm babies had birth asphyxia, hypoglycemia was seen in 6.1% of late preterm babies, The incidence of hyperbilirubinemia in our study group was 33.6%, with 63.8% of late preterms having hyperbilirubinemia p value <0.0001 while only 26.9% of the term babies were having hyperbilirubinemia, 50% of the late preterm had respiratory distress p value <0.001, Apnea was seen in 13.3% of late

preterms p value 0.001. Mortality rate among late preterm was 13.8% (p value <0.0001) compared to 4.3% in term neonates and the commonest cause of death was sepsis (27.6%) followed by birth asphyxia (17.2%) and Respiratory Distress (17.2%).

Etiological factors associated with late preterm deliveries were analysed and indicated late preterm births (occurring following obstetric or fetal indications) constituted the largest group (53.3%) followed by spontaneous preterm deliveries (where no etiology could be identified) 27.1% and PROM 19.5%. Among the indicated deliveries most common etiological factor seen in the study was PIH/ preeclampsia/ eclampsia (24.1%) and oligohydramnios (21.4%). Culture proven sepsis was found to be more common in late preterm births following PROM (24.4%) and preterm births complicated by PIH and oligohydramnios (25%), Respiratory distress was more commonly associated with APH (88.9%), followed by PIH and oligohydramnios (75%) multiple pregnancy (66.7%) PIH (66.7%) and oligohydramnios (54.2%). Birth asphyxia was found to be more common in late preterm births complicated by APH (66.7%), followed by PIH and oligohydramnios, oligohydramnios alone (66.7%). Apnea was more commonly associated with late preterm births complicated by APH (33.3%). Hyperbilirubinemia was seen frequently in preterm births complicated by PIH (81.5%) PROM (80.5%), multiple pregnancy (66.7%). feeding problems were found to be more common in

late preterm births complicated by APH (88.9%) followed by multiple pregnancy (66.7%), PIH (63%), PIH and oligohydramnios (50%). Late preterm babies born following ante natal complications like APH (44.4%), oligohydramnios (33.3%), PIH (22.2%), were more likely to be dead in the immediate neonatal period than others.

## **CONCLUSION**

Late preterms are at higher risk of mortality and morbidity compared to term neonates. Treating late preterm babies as term babies need to be avoided.

Understanding the morbidity risk among late preterm infants not only helps in anticipating and managing these at risk newborns but also help in determining the timing of discharge and follow up after discharge and also helps in guiding non emergency obstetric intervention decisions. In this study we found out that the various neonatal morbidities and mortalities depended upon the etiological factors. Because the actual etiological factor is recognized as a determinant in neonatal outcome, more attention should be devoted to determine the etiology of late preterm births and prevent unnecessary late preterm births.

**KEY WORDS :** Late preterm, term, Neonatal Morbidity, Neonatal Mortality, Respiratory Distress, Hypoglycemia, Hyperbilirubinemia, Culture proven sepsis, perinatal asphyxia, Apnea.

## 1.1INTRODUCTION

More than 1 in 10 of the world's babies born in 2010 was born prematurely, making an estimated 15 million preterm births of which more than 1 million died as a result of their prematurity. Prematurity is now the second leading cause of death in children under 5 years and the single most important cause of death in the first month of life. Complications of preterm birth are the single largest direct cause of neonatal deaths, responsible for 35% of world's 3.1 million deaths a year. Nearly 75% of these preterm births are constituted by late preterms<sup>1</sup>. Infants born at 36 0/7 through 36 6/7 weeks gestation are called the “late preterm” infants. Late preterm newborns are now the fastest growing subset of neonates, accounting for approximately 74% of all preterm births and 8% of total births. The late preterm birth rate has risen 25% since 1990.

The late preterm neonates are often the size and weight of term infants and as a result are often treated by parents, caregivers and health professionals as term neonates, as if they are developmentally mature and at low risk of morbidity and mortality. But in reality late- pre term infants are physiologically and metabolically immature and at higher risk of developing medical complications that result in higher rates of mortality and morbidity<sup>2-8</sup>.

It is important to understand why these infants are being born early, as well as the unique problems these infants experience. As a clearer understanding of the underlying risk factors ,associated etiologies and morbidity of late preterm births may help in preventing unnecessary late preterm births and thus improve the management of late preterm<sup>1</sup>.

There is paucity of studies and published data comparing the morbidity and mortality of late preterm and term babies in Indian settings and the antenatal and perinatal events leading to late preterm births has not been evaluated so far.

On these basis the aim of this study was to compare the incidence of major clinical complications and mortality of late preterm infants born in our hospital with those born at term. This study also aims to evaluate for the antenatal and perinatal events leading to preterm delivery.

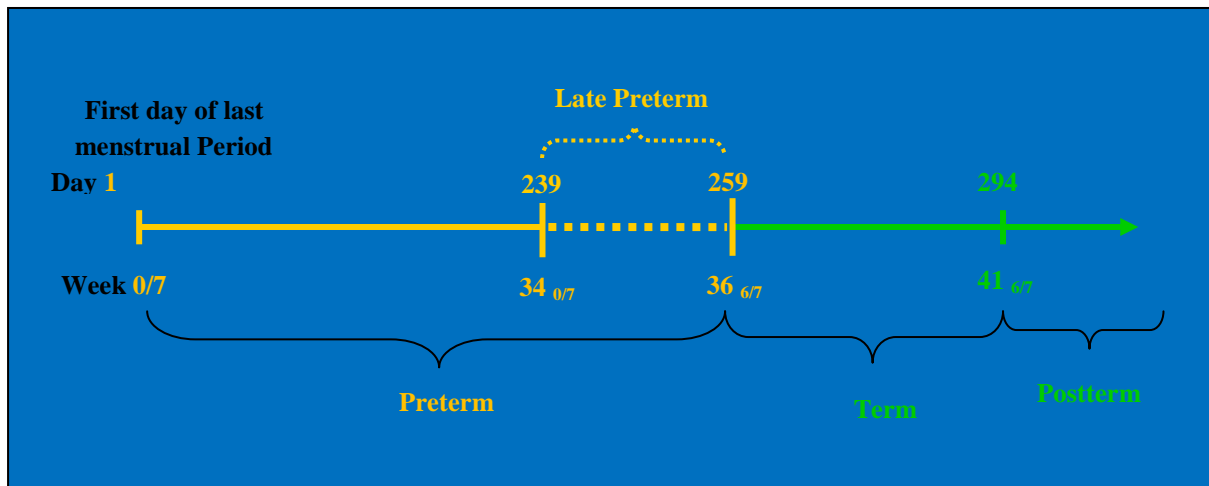


## 1.2 DEFINITION

Preterm births refers to all deliveries < 37-0/7 weeks. This classification includes very preterm (<32-0/7 weeks), moderately preterm ( 32-0/7 to 33-6/7 weeks) , and late preterm births ( 34-0/7 to 36-6/7 weeks). Term births refer to deliveries that occur from 37-0/7 to 42-0/7 weeks) , and post term births refer to any delivery occurring after 42-0/7 weeks. In other words “preterm” is defined as a birth that occurs on or before the end of the last day of the 37<sup>th</sup> week (259<sup>th</sup> day) after the onset of mother’s last menstrual period. “Term” is defined as a birth that occurs on the first day of 38<sup>th</sup> week (260<sup>th</sup> day) through the end of the last day of 42<sup>nd</sup> week (294<sup>th</sup> day) after the onset of last menstrual period<sup>1</sup>. “Post term” describes the birth of an infant that occurs on or after the first day(295<sup>th</sup> day) of the 43<sup>rd</sup> week after the onset of last menstrual period.<sup>18,19</sup>

Previously late preterms were classified as “near terms” as they were thought to be similar to that of term infants .The 2005 workshop “Optimizing Care and Outcome of the Near Term Pregnancy and the Near Term New Born Infant “ sponsored by National Institute of Health recommended that infants born between 34 0/7 and 36 6/7 weeks gestation after mother’s last menstrual period be referred to as ‘late preterm ‘ rather than ‘near term’ to emphasize that these infants are

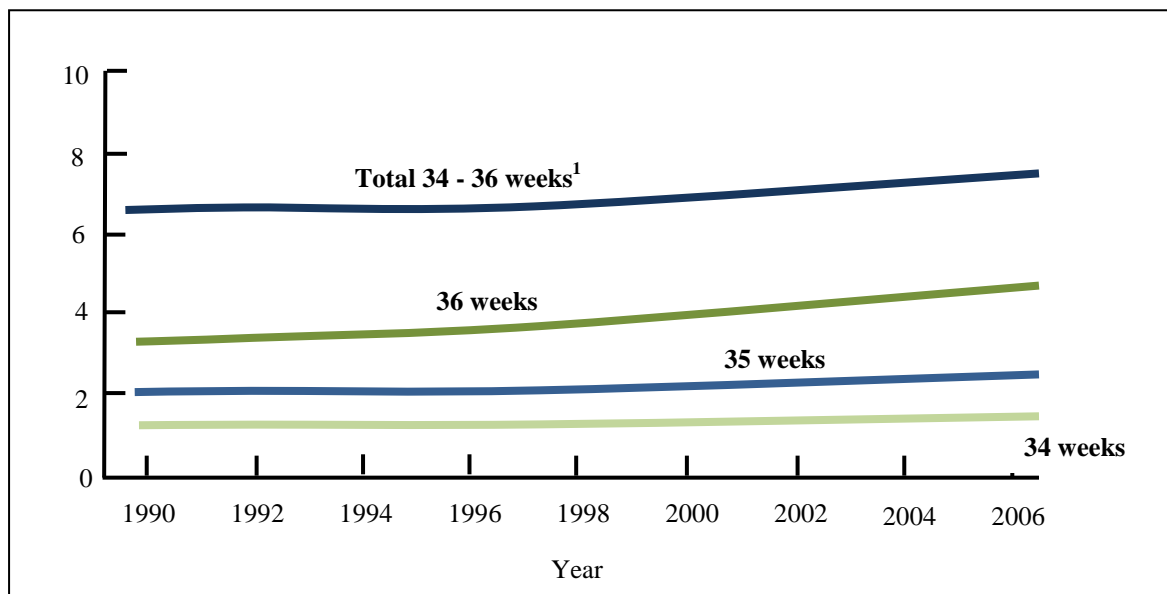
preterm and therefore are at greater risk of immaturity related medical complications<sup>5,18</sup>.



## 1.3 EPIDEMIOLOGY

Late preterm deliveries are on the rising trend. In 2005, late – preterm births accounted for more than 70% of all pre term births <sup>10-12</sup>. The increasing trend in preterm births between 1990 and 2006 is mostly due to the rise in late preterm births, which rose from 7.3 to 9.1% <sup>10</sup>. Put in another way, 1 of every 15 babies born in 1990 was delivered late preterm compare with about 1 of 12 infants in 2006.

### TREND IN LATE PRETERM DELIVERY



In the Indian population the data is sparse but is considered to be similar to western world in terms of incidence and morbidities of preterm. The exact reason for rise in late preterm delivery is not understood but is presumed to be due to

1. Increased use of reproductive techniques and the multiple pregnancies<sup>11,14-16</sup>
2. Due to the advances in obstetric care leading to increased interventions and surveillance , due to which the at risk newborn is identified early resulting in more deliveries at 34 to 36 weeks gestation<sup>10,11,14-17</sup>.
3. Advanced maternal age and increased incidence of diabetes mellitus and hypertension complicating pregnancy also contributes to late preterm deliveries.
4. The practice of conducting elective caesarean sections without medical indication which is on the rising trend also contributes to rise in late preterm births.

## 1.4 ETIOLOGY OF LATE PRETERM DELIVERY

The etiological classification of late preterm can be done as

### **Indicated or iatrogenic births :**

Due to an adverse maternal or fetal condition like preeclampsia, IUGR, placental abruption, oligohydramnios etc.

### **Spontaneous :**

Which includes cases of unexplained preterm labour and PPROM.<sup>2</sup>

It has been observed that compared with births < 34weeks, late preterm births are more likely to be the result of spontaneous idiopathic preterm labour or PPROM than medical or pregnancy indications. It has been estimated that relative distribution of etiologies of preterm births <34 weeks gestation is 30% indicated, 30% PPROM and 40% spontaneous preterm labour .For late preterm births, the relative distribution of etiologies has been as 20% indicated, 25% PPROM, and 55% preterm labor<sup>15</sup> .As such, a larger portion of late preterm births are due to spontaneous preterm labour (two-thirds) compared with PPROM (one-third) . The causes of indicated late preterm births are similar to that of all preterm births, including preeclampsia (46%), fetal indications (18%), placental abruption (14%), and other indications ( 20%).

## 1.5 PATHOPHYSIOLOGY AND CLINICAL COURSE

Late preterms are physiologically and metabolically immature predisposing them to many short term and long term complications. These include temperature instability, hypoglycaemia, respiratory distress<sup>2,20,25,60</sup>, apnoea<sup>28,32</sup>, hypoglycaemia<sup>2</sup>, hyperbilirubinemia<sup>19,50, 61,62</sup>, poor feeding and developmental and behavioural problems. During initial hospitalisation, late-preterm infants are 4 times more likely than term infants to have at least one medical condition diagnosed and 3.5 times more likely to have two or more conditions diagnosed<sup>2</sup>. The risk of infant death among late preterm births is three fold higher than the risk among term births. Because of the misleading conception that late preterm is almost term, late preterm neonates are discharged inappropriately according to the guidelines of term neonates. Early postnatal discharges (within 48 to 72 hrs) are recorded in late preterm infants. Early discharge prevents early recognition and timely intervention of morbidities<sup>8</sup>. Thus late preterm infants have significantly higher rate of readmission than term neonates<sup>3</sup>.

## RESPIRATORY DISTRESS

Respiratory problems occur in 8 to 30% of late preterm births , but only < 5% of term births. All forms of pulmonary disorders like respiratory distress syndrome , transient tachypnoea of newborn, pneumonia, and persistent pulmonary hypertension of newborn are common in late preterms .Late preterms are born during the period of transition from the terminal sacular to the alveolar period of lung development<sup>2,24,25</sup> .During the alveolar period , pulmonary capillaries begin to bulge into the space of each terminal sac and the adult pool sizes of surfactant are achieved<sup>26</sup> . Functionally, this immature lung structure may be associated with delayed intrapulmonary fluid absorption , surfactant inefficiency and inefficient gas exchange <sup>20,21</sup> . Clearance of fetal lung fluid is controlled by amiloride sensitive epithelial sodium channels( ENaC) and its peak expression occurs only at term gestation leading to increased incidence of Transient Tachypnoea of Newborn in late preterm babies. Glucocorticoid surge which occurs during vaginal delivery upregulate the ENaC 's which doesn't occur in late preterms born by elective caesarean contributing to the respiratory morbidity. Studies have shown that the risk of pulmonary hypertension following RDS is more likely in late preterms compared to those born less than 34 weeks . Late preterm infants have low cardiovascular reserve because of

structural and functional immaturity<sup>33,34</sup> which predispose them to respiratory distress at times of stress and delayed closure of ductus arteriosus and persistent pulmonary hypertension also can cause respiratory distress<sup>35</sup>.

## **APNOEA**

Apnoea occurs more frequently in late preterm infants than term infants. The incidence of apnoea in late – preterm infants is reported to be between 4% and 7%<sup>22,24,27,28</sup> compared with less than 1% to 2% at term babies<sup>28,29</sup>. Immature brain with less sulci and gyri , less myelination of brain leading to increased susceptibility to hypoxic respiratory depression<sup>30</sup>, decreased central chemosensitivity to carbon dioxide ,immature pulmonary irritant receptors ,increased respiratory inhibition sensitivity to laryngeal stimulation and decreased upper airway dilator muscle tone<sup>24,28,30-32</sup> has been postulated as the mechanisms contributing to apnea.

## **TEMPERATURE REGULATION**

An infant's response to cold exposure after birth is determined by gestational age and is affected by the physical size, the amount of mature brown and white adipose tissue and maturity of the hypothalamus<sup>36-38</sup>. Brown fat accumulation and maturation and concentrations of hormones responsible for brown fat metabolism (eg. Prolactin, leptin,



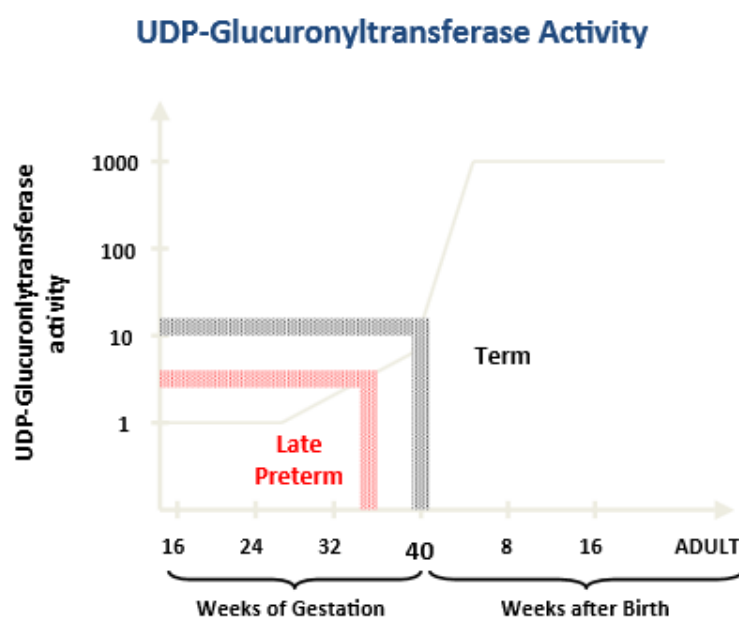
norepinephrine, triiodothyronine, cortisol)<sup>39,40</sup> peak at term. Thus, late preterms have less white adipose tissue for insulation, and they cannot generate heat from brown adipose tissue as effectively as those infants born at term. In addition, late preterm infants are more likely to lose heat more readily than term infants, because they have a larger ratio of surface area to weight and as they are relatively smaller in size. These factors lead to increased incidence of hypothermia in late preterms compared to terms.

## **HYPOGLYCEMIA**

While only 0.4% of term babies suffer from low blood sugar in the first hours after birth, 6.8% of late preterms are hypoglycaemic after delivery. Infants of all gestational ages are at risk of hypoglycaemia because of the sudden loss of maternal glucose after birth and their immature metabolic responses<sup>41-45</sup>. Incidence of hypoglycaemia increases with decrease in gestational age. Preterm infants are at increased risk of developing hypoglycaemia after birth, because of the immature hepatic glycogenolysis and adipose tissue lipolysis, hormonal dysregulation, low glucose reserves and deficient hepatic gluconeogenesis and ketogenesis<sup>41,44</sup>. The incidence of hypoglycaemia is maximum at 12 to 24 hours after delivery and decreases as the enzymes for gluconeogenesis and ketogenesis increases.

## HYPERBILIRUBINEMIA

Although only 2.5% of full term babies have hyperbilirubinemia needing phototherapy, 18% of late preterm babies have hyperbilirubinemia requiring phototherapy. Hyperbilirubinemia is more common and prolonged with the indirect bilirubin peak concentration more in late preterm infants than term infants. This is because late preterm infants have delayed maturation and a lower concentration of uridine diphosphoglucuronyltransferase<sup>19,46</sup>. Poor feeding and impaired gastrointestinal motility leads to increased enterohepatic circulation. Late preterm infants are 2 times more likely than term infants to have elevated bilirubin concentrations at 5 and 7 days after birth<sup>19</sup>. Because of poorly formed blood brain barrier they are also more susceptible to bilirubin induced neurological damage and kernicterus.



## **FEEDING AND GASTROINTESTINAL FUNCTION**

Late preterm infants have immature gastrointestinal tract function<sup>47,48</sup>. Feeding difficulties in late- preterm infants are due to the relatively low oromotor tone, incoordination of the suck - swallow – breath cycle and gastrointestinal dysmotility<sup>23, 57-59</sup>. Feeding problems lead to decreased calorie intake, an increase in enterohepatic circulation, decreased stool frequency, dehydration, hypoglycaemia, and hyperbilirubinemia<sup>49-58</sup>. These babies are able to handle often the low volume colostrums but are unable to latch onto the breasts and suck vigorously. In addition late preterm babies are often discharged before breast milk volumes become sufficient and adequacy of breast feeding is assessed. These all lead to failure of lactation.

## **IMMUNOLOGICAL IMMATURITY AND INFECTION**

Late preterms are more predisposed to sepsis as there is incomplete transfer of maternal antibodies and their immune system is relatively immature. Infant mother separation causing decreased exposure to colostrum, increased hospitalisation leading to alteration in intestinal flora also contributes to sepsis.

## **HOSPITAL READMISSION**

Late preterm infants with short NICU stays may be at increased risk of hospital readmission after the birth hospitalization compared with all other NICU survivors<sup>52,53,55,58,63</sup>. The reason for readmission for majority of these late preterm infants was found to be jaundice, suspected sepsis and feeding difficulties.

## **LONG TERM DEVELOPMENTAL OUTCOME**

The last 6 weeks of gestation is the critical time for brain growth and development. In particular, active myelination occurs in late preterm period and for an additional 24 postnatal weeks. Between 34 and 40 weeks of gestational age, significant growth is observed in the gyri, sulci, synapses, dendrites, axons, oligodendrocytes, astrocytes, and microglia which contributes to the 50% increase of cortical volume and the 25% increase of cerebellar development. In clinical studies, white matter volume reduction was detected in preterm infants born appropriate for gestational age (AGA) without brain injuries, and significant periventricular leukomalacia was found in late preterm infant autopsies. Late preterm infants are born with immature brains and they are more likely to have neonatal disorders which may cause further damage to underdeveloped brain than term infants. Hence there is higher incidence of neurodevelopmental problems in late preterm neonates than their term

counterparts. Infants born during the late preterm period have more than 3-fold increased risk of developing cerebral palsy compared with term infants. Late preterm infants with term infants have a higher risk of cerebral palsy<sup>65</sup>, speech disorders<sup>66,67</sup> neurodevelopmental handicaps<sup>67</sup>, behavioural abnormalities<sup>68</sup>.

## 1.5 MANAGEMENT

- Accurate assessment of gestational age and birth weight and classification into SGA/AGA/LGA should be done soon after birth.
- Monitor vital signs as temperature, heart rate, respiratory efforts, saturation every 30 minutes until they are stable for 2 hrs, followed by every 4 hrs for 24 hrs and then every 8 hours until discharged.
- Monitor for blood glucose at 2 hours and then 12 hourly
- Provide kangaroo mother care as early as possible after birth and for as long as possible.
- Late preterm infants must have an assessment of their serum bilirubin levels within 48 hrs of birth, and be evaluated using current guidelines for detection, management and prevention of hyperbilirubinemia for late preterm newborn infants.
- A feeding plan should be made for each infant and infant should be observed for successful breast feeding at least twice daily after birth<sup>86</sup>.
- Twenty- four hours of successful feeding of late preterm infants must be established before discharged home.
- Primiparous mothers in particular, require careful supervision regarding breast feeding and when infants are leaving from an intensive care environment , should have a rooming –in experience.

- Early weight loss should not exceed 10% of body weight.
- Late preterm infants of less than 36 weeks of gestation should be considered at risk of infection and should be carefully followed up for the signs and symptoms of sepsis.

## **1.6 RECOMMENDED DISCHARGE CRITERIA FOR LATE PRETERMS**

- Timing of discharge is individualised based on the feeding adequacy, thermoregulation and stability of vital signs and absence of medical illness. They are not discharged before 48 hours of birth<sup>69</sup>.
- Vital signs should be stable for the 12 hours before discharge<sup>69</sup>.
- Should have good urine output and at least one stool passed spontaneously<sup>69</sup>.
- 24 hours of successful breast feeding and ability to coordinate sucking, swallowing and breathing while feeding should be demonstrated<sup>69,71-73</sup>.
- A pre discharge serum bilirubin has been done and plotted on the normogram.
- The mother and caregivers should have received information or training or have demonstrated competency in the following
  1. Infant's hospital course and current condition should be explained ( oral and written)
  2. Expected pattern of urine and stool frequency for breast feeding or formula fed neonate.



3. Parents should be told that babies would be sleepier than full term and sleep through feedings → should awaken the infant to feed. Should sleep on their backs
4. Umbilical cord, skin , and newborn genital care.
5. Hand hygiene and other measures to reduce the risk of infection.
6. Use of a thermometer to assess an infant's axillary temperature.
7. Provision of appropriate layers of clothing.
8. Teach the parents regarding identification of common signs and symptoms of illness, such as hyperbilirubinemia, sepsis and dehydration

## **1.7 FOLLOW UP**

### **Schedule appointment in 1-2 days after discharge**

#### **At first visit;**

- i. Assess dehydration with weight check. Evaluate feeding practices if weight loss greater than appropriate for age .
- ii. Evaluate for jaundice if present clinically.
- iii. Arrange for continued follow up.
- iv. Reemphasize educational points.

#### **Subsequent visits;**

Monitor growth parameters (weight, length, and head circumference) at each well – baby visit. Consider need for fortification or supplementation of breast milk if infant is failing to thrive per appropriate preterm growth curves. Assess both volume of intake and also calorie density of feeds when planning fortification or supplementation. Reassess at each visit to determine continued need for fortification or supplementation to maintain normal growth.

Supplement feedings with 0.5 to 1.0 mL of standard multivitamins per day, 2 to 4 mg per kg of iron per day and 400IU of vitamin D per day.

- Vaccination for premature infants should proceed according to chronologic age with the exception of hepatitis B which is not given in infants weighing less than 2000 gms.
- Evaluate for sensory impairments including hearing, vision and sensory integration.
- Developmental assessment should be performed at each well-baby visit, and early intervention should be initiated when delay is detected.
- Manage complications of prematurity-

**Respiratory-** BPD, apnoea of prematurity.

**Growth and Nutrition** - Inadequate nutrition and growth, difficulty with breast feeding, nutritional deficiencies.

**Gastrointestinal** - Gastroesophageal reflux, colic, constipation, direct hyperbilirubinemia .

**Neurologic** - IVH, delayed neurodevelopment.

**Hematologic** - Anemia of prematurity, indirect hyperbilirubinemia.

**Endocrine** – Hypothyroidism, osteopenia.

**Neurosensory** – ROP, other ophthalmologic issues, hearing loss

## **2. AIMS AND OBJECTIVES**

- To compare the mortality and short term morbidity pattern of late preterm with that of term of term neonates.
- To identify the etiologies associated with late preterm deliveries and their association with morbidity and mortality.

### **3. REVIEW OF LITERATURE**

#### **3.1. ETIOLOGY**

Limited studies have evaluated the etiology of late preterm deliveries. Reddy et al<sup>10</sup> divided the etiology of late preterm deliveries into five groups; Maternal medical conditions, obstetric complications, major malformations, isolated spontaneous deliveries and no recorded indications, which accounted for 14%, 16%, 1%, 49% and 23.25% of all deliveries respectively. Laughon<sup>11</sup> et al reported that spontaneous labour, preterm premature rupture of membranes, and indicated deliveries each accounted for about 30% of late preterm births <sup>2</sup>.

#### **3.2. MORBIDITIES OF LATE PRETERM**

Shapiro- Mendoza et al<sup>4</sup> found that the risk of development of neonatal morbidities in late preterm infants was 7 times higher than in term controls. Hunt et al<sup>14</sup> found out that the incidence of life threatening events in late preterm infants was 8 times higher than in full term infants. Several other studies have suggested respiratory distress syndrome, persistent pulmonary hypertension of newborns, hyperbilirubinemia, intraventricular haemorrhage, culture- proven sepsis, temperature instability, hypoglycaemia, dehydration and feeding difficulties occurred more frequently in late preterm infants than their term counter

parts<sup>3,4,15,16</sup>. Among them, hyperbilirubinemia and RDS were demonstrated as the most frequent problems<sup>9</sup>

### **3.3MORTALITY IN LATE PRETERM**

Shapiro Mendoza et al found out that the mortality in the early neonatal ( age 0-6 days), late neonatal ( age 7- 28 days) and post neonatal ( 29- 364 days) periods was 6,3, and 2 times greater in late preterms when compared to term neonates.<sup>26</sup> During infancy, late preterms were 3 times more at risk to die than term infants<sup>26, 27</sup>. Swamy et al<sup>23</sup> conducted a population based study which showed that the mortality rate of late preterm infants was higher than that of term infants from infancy to late childhood. A study conducted by Mc Intire<sup>15</sup> et al demonstrated that the neonatal mortality rates per 1000 live births were 1.1, 1.5and 0.5 at 34, 35 and 36 weeks respectively, compared with 0.2 at 39 weeks demonstrating that the mortality rate of late preterm infants decreases as gestational age increases. The commonest causes of deaths reported in various studies were congenital malformation, prematurity, sepsis, atelectasis, maternal complications and SIDS<sup>26,27</sup>. SGA is believed to increase the mortality<sup>24</sup>.

<b>References</b>	<b>Year of Patient's Birth</b>	<b>Country</b>	<b>Age to follow-up</b>	<b>Mortality rate (%)</b>	<b>RR (95% CI)</b>
Guasch et al	1992 - 2008	Spanish	Until discharge	0.5	4.7 (2.3-9.5)
Mathews et al	2003	USA	1 Y	0.7	Nd
Swamy et al	1967 - 1988	Norway	1 Y	7.0	For girls:6.3(5.7-6.9) For boys : 5.7(5.3-6.2)
Swamy et al	1967 - 1989	Norway	6 Y	0.8	For girls:1.6(1.2-2.0) For boys : 1.5(1.2-1.8)
Swamy et al	1967 - 1990	Norway	13 Y	0.3	For girls : 1.5(1.0-2.1) For boys : 1.2(0.9-1.6)
Swamy et al	1967 - 1991	Norway	18 Y	0.4	For girls : 1.3 (0.9-1.9) For boys : 1.0(0.8-1.4)
Kramer et al	1995	USA	1 Y	7.6	2.9 (2.8-3.0)
Kramer et al	1992 - 1994	Canada	1 Y	4.9	4.5 (4.0 - 5.0)
Pulver et al	1999 - 2005	USA	1 Y	0.8	10.5 (7.1-15.3), 7.2 (5.10.4) and 5.3 (3.8-7.2) for infants born 34, 35 and 36 weeks,respectively

### **3.4GROWTH AND DEVELOPMENT**

Santos et al found that the risk of being underweight stunted and wasted were at least two folds higher for late preterm infants than their term controls.

### **3.5 HOSPITAL READMISSION**

McLaurin<sup>21</sup> et al reported that late preterm infants were almost twice at risk for rehospitalisation when compared to term neonates during the first postnatal year. Jaundice, infection, feeding difficulties and failure to thrive are the commonest causes of readmission<sup>7</sup>.

### **3.6 NEUROEVELOPMENTAL OUTCOME**

Moster et al<sup>28,29</sup> found out that the survival of late preterms is increased over the years but the incidence of neurodevelopmental sequelae such as cerebral palsy, developmental delay/ mental retardation, epilepsy, neurosensory disabilities are on the rising trend. A retrospective cohort study<sup>27</sup> revealed that late preterm infants were 3 and 1.47 times more likely than term infants to be diagnosed with cerebral palsy and developmental delay/mental retardation at 5.5 years of age. Moster et al<sup>28</sup> found that cerebral palsy, mental retardation and schizophrenia were 2.7, 1.6 and 1.3 times more common in late preterm than in term infants, respectively. It has been suggested that infants of all gestational age including term, are at risk of having neurodevelopmental problems and



the prevalence of neurodevelopmental sequelae in late preterm infants is between that of very premature neonates and term neonates<sup>30</sup>. Late preterm infants have worse school performance compared to their term counterparts<sup>23, 28, 31-34</sup>.

Swamy et al<sup>23</sup> found out that adults born late preterm are at risk more reproductive problems than their term counterparts.

## **4. MATERIALS AND METHODS**

### **STUDY DESIGN**

This was a prospective study conducted in the Department of Pediatrics, Tirunelveli Government Medical College, Tirunelveli over a period of 6 months from January 2014 to June 2014. The study was approved by the hospital ethical committee.

### **METHOD OF STUDY**

All consecutively born babies delivered in Tirunelveli Medical College Hospital with gestational age above 34 weeks during the study period were divided into two groups.

### **STUDY GROUP**

1. All the late preterm infants
2. The term neonates.

Informed consent was obtained from parents prior to enrolment in the study

### **INCLUSION CRITERIA**

All consecutively born babies delivered in Tirunelveli Medical College Hospital with gestational age above 34 weeks during the study period were included in the study.

## **EXCLUSION CRITERIA**

Neonates less than 34 weeks of gestation and neonates with major congenital anomalies and those with chromosomal syndromes were excluded from the study.

The infants were followed up in the maternity ward or in the neonatal intensive care unit until hospital discharge.

Data were collected from the mother's and infant's medical records with additional information collected using a structured form which include details as

### **A. Maternal variables**

- Name
- Age
- Parity
- Antenatal steroids given or not
- Etiological factors for late preterm delivery like PROM, medical illnesses like PIH/GDM/ Anemia, maternal infections, chronic maternal diseases, oligohydramnios, APH, multiple pregnancy, chorioamnionitis, previous preterm births, family history of preterm delivery
- Mode of delivery

- Indication for Caesarean section

## **B. Neonatal variables**

- Gestational age
- Sex
- Birth weight
- AGA/ SGA/ LGA
- Perinatal Asphyxia
- Hypoglycemia
- Hyperbilirubinemia
- Respiratory problems with need for oxygen, surfactant administration and/ or mechanical ventilation
- Apnea
- Sepsis probable and culture proven
- Feeding problems
- Deaths and their causes

As per our institutional guidelines all the late preterms were admitted in Neonatal Intensive Care Unit. Admission of the term babies was determined on the basis of the adverse perinatal events.

Gestational age assessment was done on the basis of the dating scan whenever available, mother's LMP and based on the clinical assessment by New Ballard scoring system.

## **PERINATAL ASPHYXIA**

All infants who needed resuscitation as per the NRP guidelines 2010.

## **HYPOGLYCEMIA**

Capillary blood glucose less than 40mg/dl. Blood sugars were monitored at 12 hourly intervals in all late preterm, IUGR, IDM and LGA infants. Random blood sugar estimation was also done in all symptomatic infants as per the clinician's discretion.

## **HYPERBILIRUBINEMIA**

Clinically visible jaundice requiring phototherapy/ exchange transfusion as per hour specific total serum bilirubin normogram ( AAP chart). Criteria for 3 weeks were used for infants with 34 weeks gestation.

## **SEPSIS PROBABLE**

Positive sepsis screen (two of the five parameters positive namely

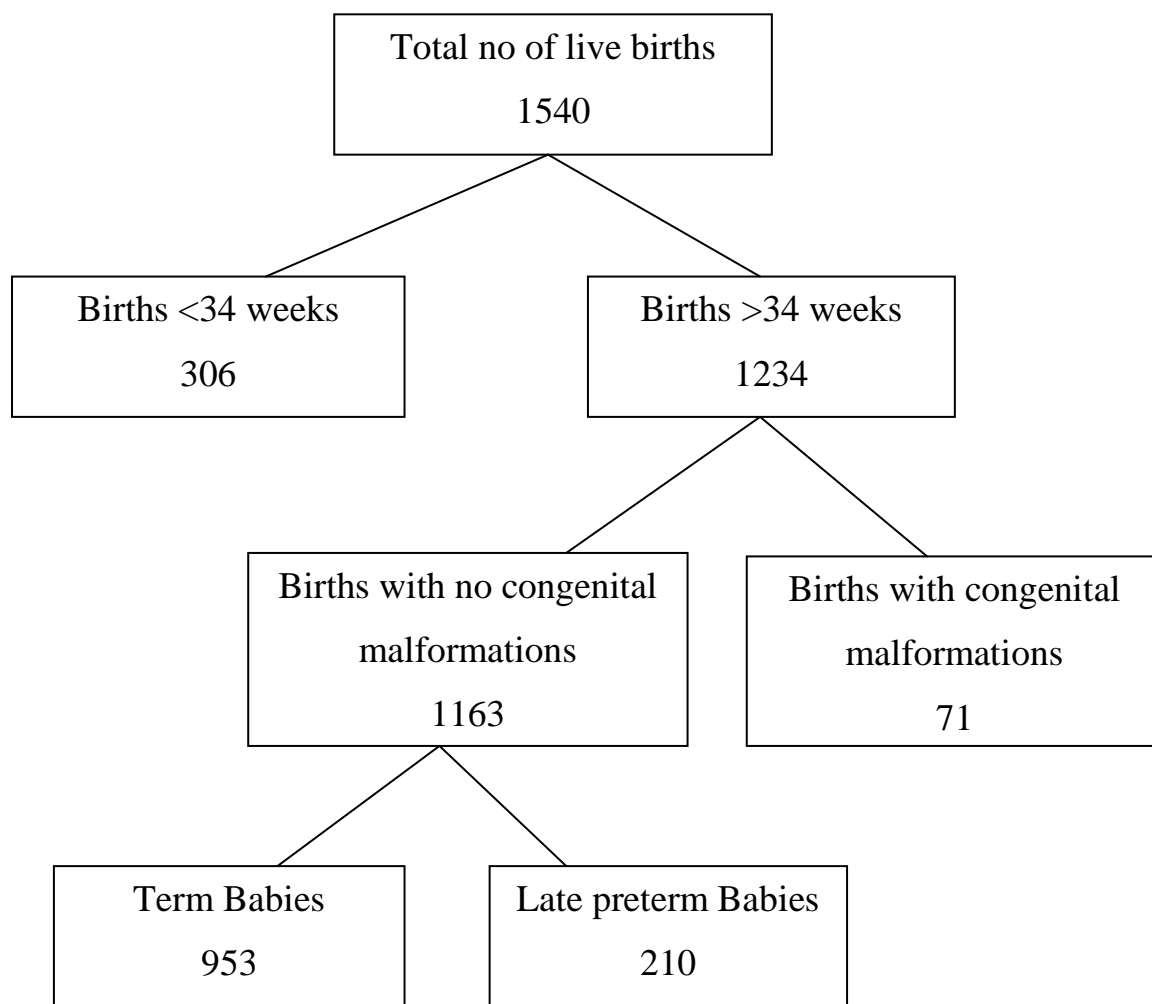
1. Total leucocyte count, 5000/mm<sup>3</sup> or > 15,00/mm<sup>3</sup>,
2. band to neutrophil ratio of. 0.2,
3. absolute neutrophil count less than 1800/mm<sup>3</sup> ,
- > 7200/mm<sup>3</sup>,
4. C reactive protein > 6mg/dl,
5. Platelets < 1 lakh/mm<sup>3</sup>

**SEPSIS PROVEN** - Isolation of pathogens from blood or CSF or urine.

## **FEEDING DIFFICULTY**

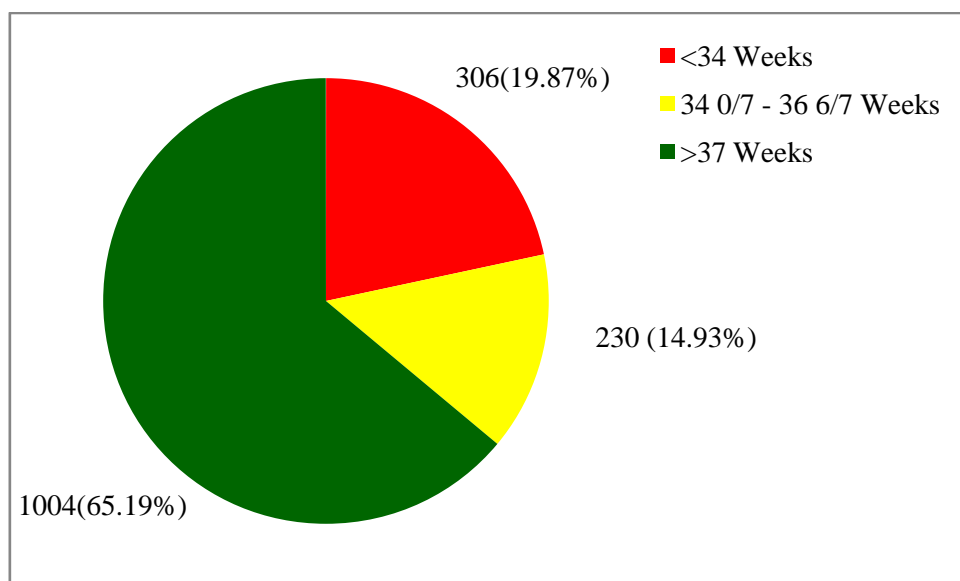
Difficulty in coordinating suck swallow breath cycle resulting in need for feeding through orogastric/ nasogastric tube/ paladai feeding or feed intolerance necessitating parenteral nutrition.

## 5. OBSERVATIONS AND ANALYSIS



Neonatal morbidities were compared between late preterm and term infants by using Chi- square test for discrete variables and t test for continuous variables. Logistic regression analysis was done for comparing multiple variables like relationship of birth weight with parity and maternal age, relationship of gender and birth weight with mortality and morbidities.

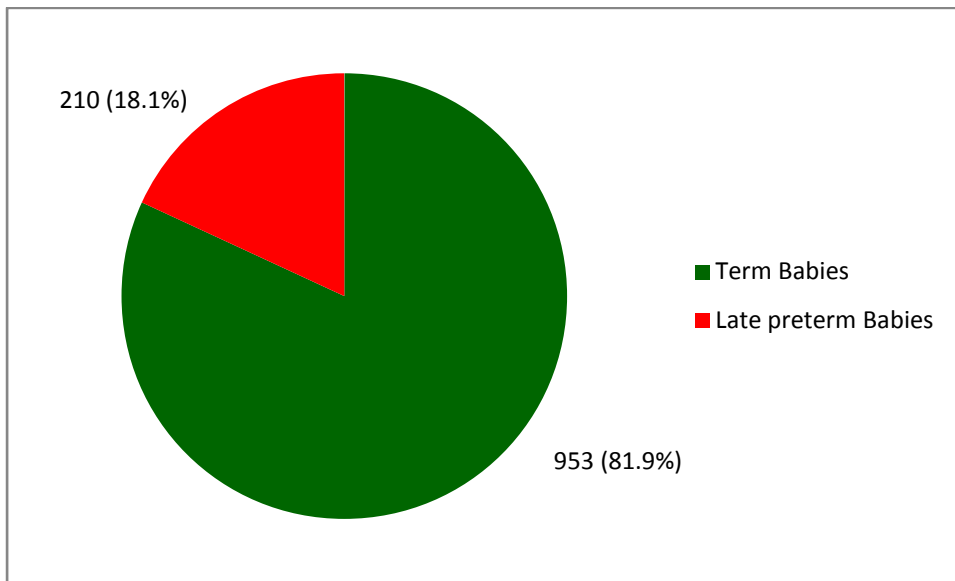
**1. Gestational age wise distribution into those born before 34 completed gestation, between 34 0/7 - 36 6/7 weeks and beyond 37 weeks of gestation.**



Latepreterms constituted 14.93% of the total live births during the study period.



## 2. Distribution of Study Population



In this study population 18.1% of late preterms were compared with 81.9% of the term neonates

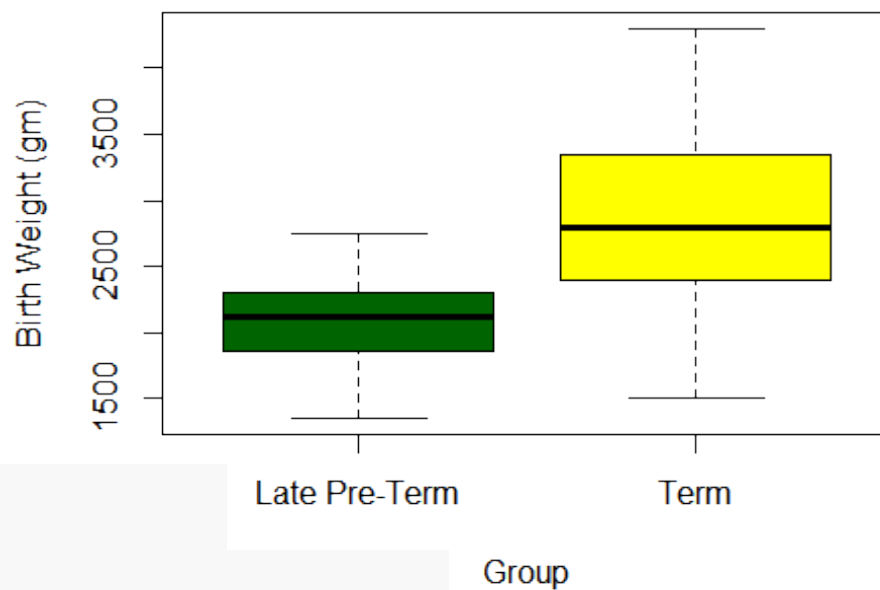
## 2. FREQUENCY TABLES

### 2.1. Frequency Table Birth Weight

	<1.5kg	1.5 – 2kg	2 - 2.5kg	>2.5kg	Total
<b>Late</b>	14	75	103	18	210
<b>preterm</b>	6.7%	35.7%	49.0%	8.6%	100%
<b>Term</b>	2	63	252	636	953
	0.2%	0.6%	26.4%	55.7%	100%
<b>total</b>	16	138	355	654	1163
	1.37%	11.86%	30.52%	56.23%	100%

55.7% of term babies had birth weight above 2.5 kg while only 8.6% of latepreterm babies had birth weight above 2.5 kg. 495 of late preterm babies had birth weight between 2 and 2.5 kg.

### Birth Weight and Preterm/Term



#### Welch two sample t test

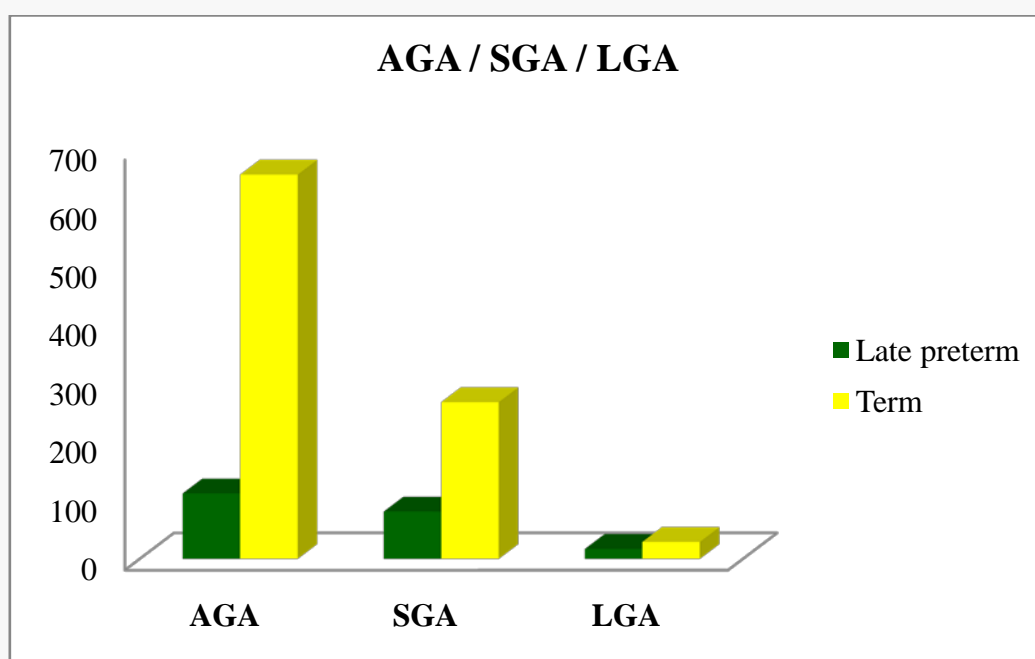
Mean in late preterm	Mean in term	P value
2.085	2.869	<0.0001

Welch two sample t-test showed that the mean of birth weight in pre-term babies is lesser than that of term babies (2.08kg and 2.87kg respectively).

## 2.2 Frequency Table : AGA / SGA / LGA

	AGA	SGA	LGA	total
<b>Late preterm</b>	112	81	17	210
	53.3%	38.6%	8.1%	100%
<b>Term</b>	656	268	29	953
	68.8%	28.1%	3.0%	100%
<b>Total</b>	768	349	46	1163
	66%	3%	4%	100%

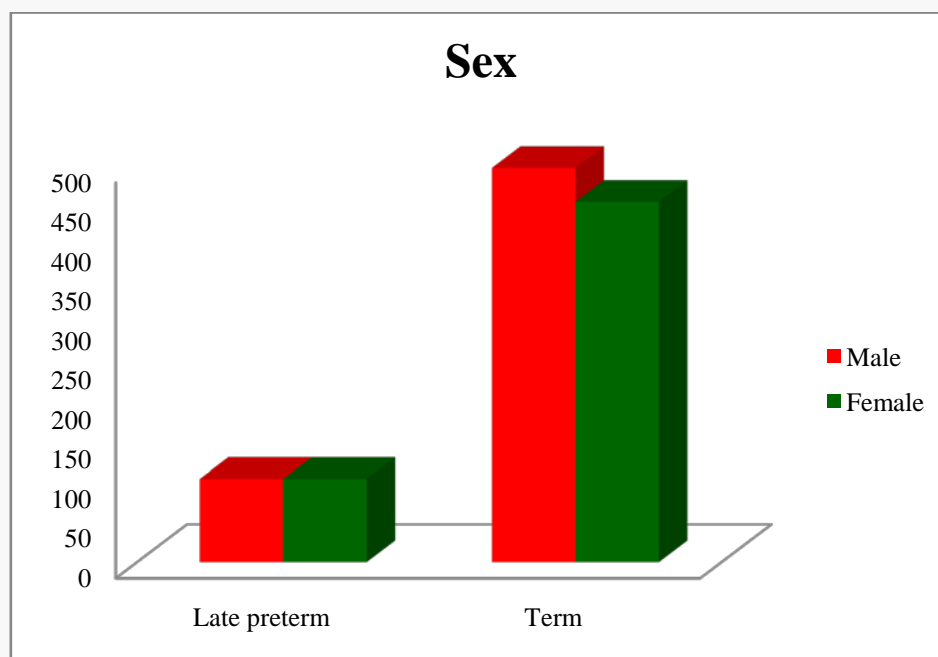
53.3% of the late preterm was AGAs while 68.8% of the term were AGAs.



### 2.3. Frequency Table : Sex

	Male	Female	total
<b>Late preterm</b>	105	105	210
	50%	50%	100%
<b>Term</b>	498	455	953
	52.3%	47.7%	100%
<b>Total</b>	603	560	1163
	51.8%	48.2%	100%

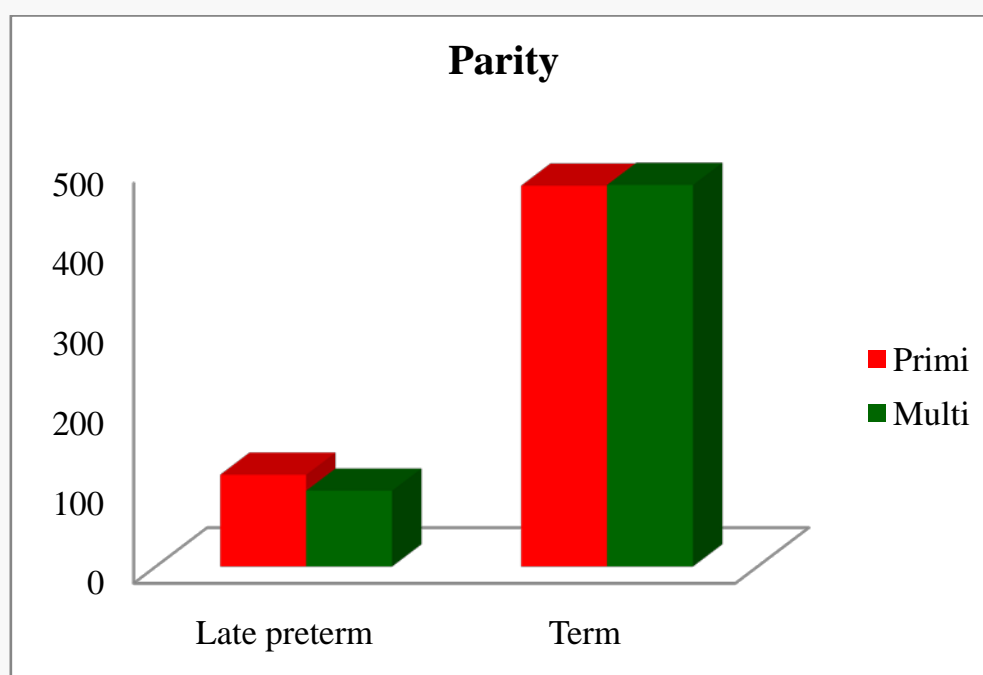
There was no difference in the sex distribution among late preterms.



## 2.4 Frequency Table : Parity

	Primi	Multi	Total
<b>Late preterm</b>	115	95	210
	54.7%	45.3%	100%
<b>Term</b>	476	477	953
	49.9%	50.1%	100%
<b>Total</b>	591	572	1163
	50.8%	49.1%	100%

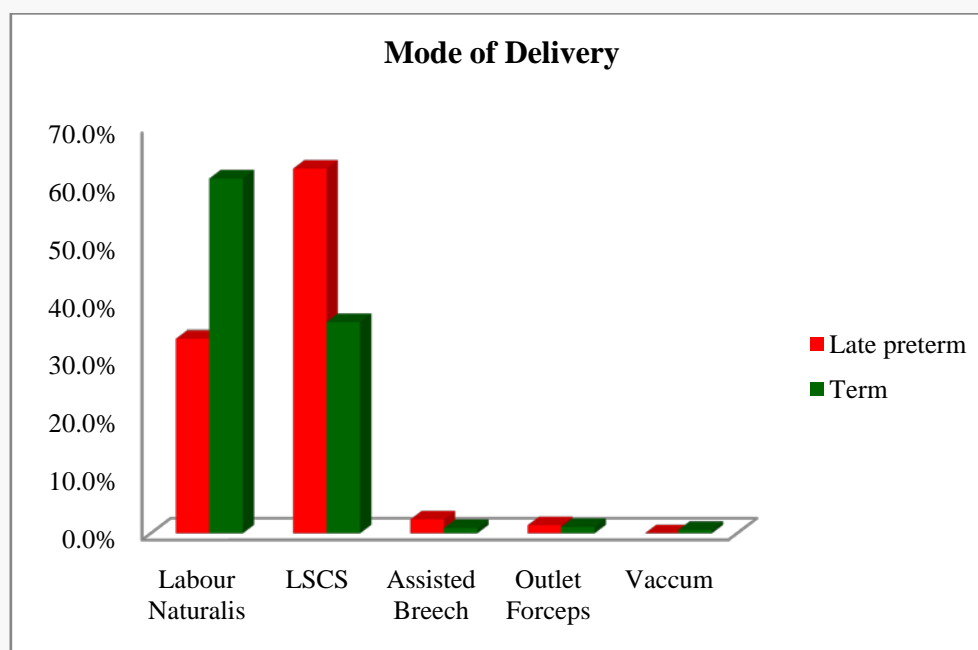
While 54.7% of the late preterm babies were born to primiparous mothers, only 49.9% of term babies were born to primiparous mothers.



## 2.5 Frequency Table : Mode of Delivery

	Labour	LSCS	Assisted	Outlet	Vaccum	total
	Naturalis		Breech	Force		
<b>Late</b>	71	131	5	3	0	210
<b>preterm</b>	33.5%	62.7%	2.4%	1.4%	0%	100%
<b>Term</b>	581	346	9	10	6	953
	61%	36.3%	0.9%	1.1%	0.6%	100%
<b>Total</b>	652	477	14	13	6	1163
	56.06%	41.01%	1.2%	1.11%	0.51%	100%

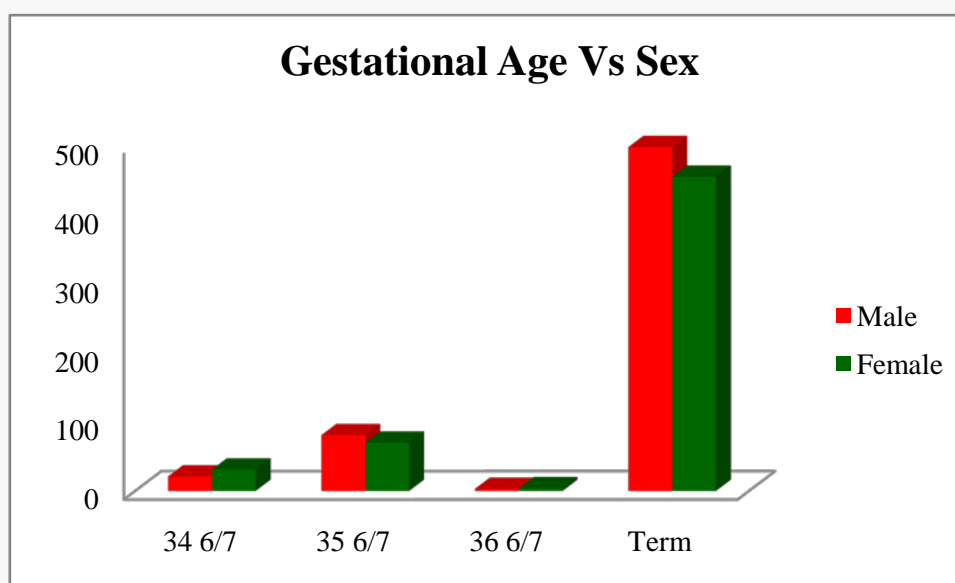
62.7% of the late preterm babies were born by LSCS, while only 36.3 % of the term babies were born by LSCS.



### 3.GESTATIONAL AGE WISE DISTRIBUTION

#### 3.1 Gestational Age Vs Sex

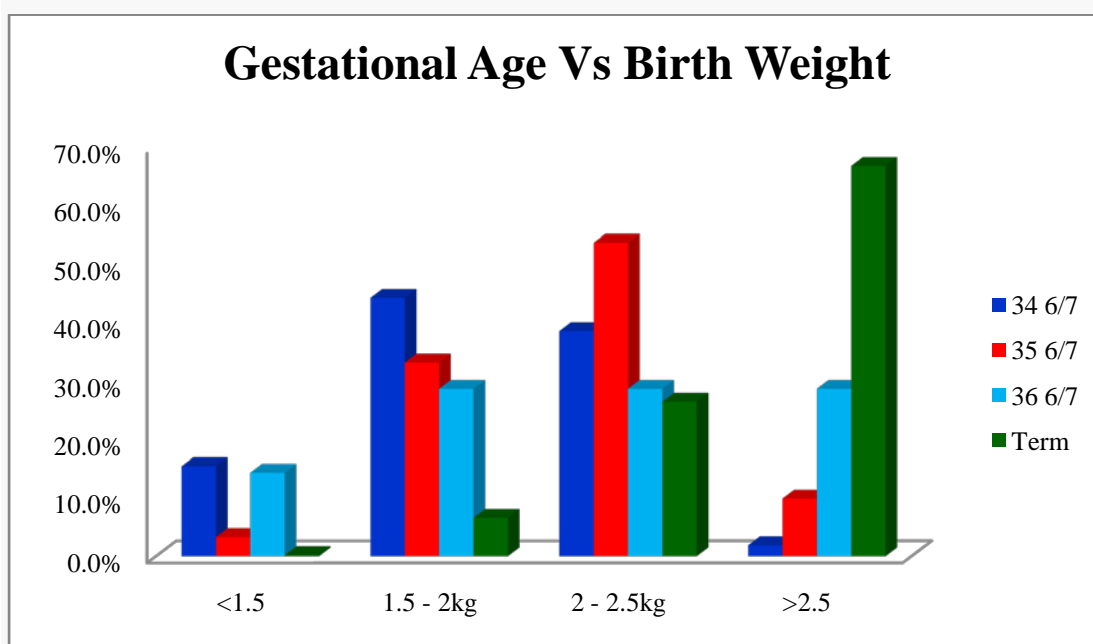
	Male	Female	Total
<b>34 6/7</b>	21	31	52
	40.4%	59.6%	100%
<b>35 6/7</b>	81	70	151
	53.6%	46.4%	100%
<b>36 6/7</b>	3	4	7
	42.9%	57.1%	100%
<b>Term</b>	498	455	953
	52.3%	47.7%	100%
<b>Total</b>	603	560	1163
	51.8%	48.2%	100%





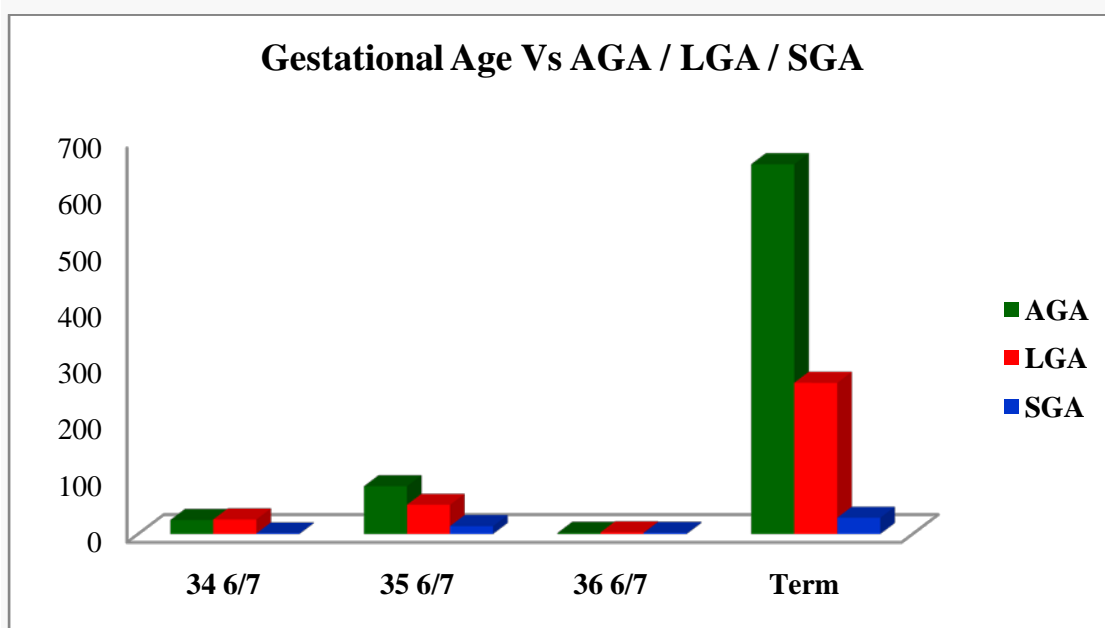
### 3.2 Gestational Age Vs Birth Weight

	<1.5	1.5 - 2kg	2 - 2.5kg	>2.5	Total
<b>34 6/7</b>	8	23	20	1	52
	15.4%	44.2%	38.5%	1.9%	100%
<b>35 6/7</b>	5	50	81	15	151
	3.3%	33.1%	53.6%	9.9%	100%
<b>36 6/7</b>	1	2	2	2	9
	14.3%	28.6%	28.6%	28.6%	100%
<b>Term</b>	2	63	252	636	953
	0.2%	0.6%	26.4%	55.7%	100%
<b>Total</b>	16	138	355	654	1163
	1.37%	11.86%	30.52%	56.23%	100%



### 3.3 Gestational Age Vs AGA / LGA / SGA

	AGA	LGA	SGA	total
<b>34 6/7</b>	25	26	1	52
	48.1%	50.0%	1.9%	100%
<b>35 6/7</b>	85	52	14	151
	56.3%	34.4%	9.3%	100%
<b>36 6/7</b>	2	3	2	7
	28.6%	42.9%	28.6%	100%
<b>Term</b>	656	268	29	953
	68.8%	28.1%	3.0%	100%
<b>Total</b>	768	349	46	1163
	66%	3%	4%	100%

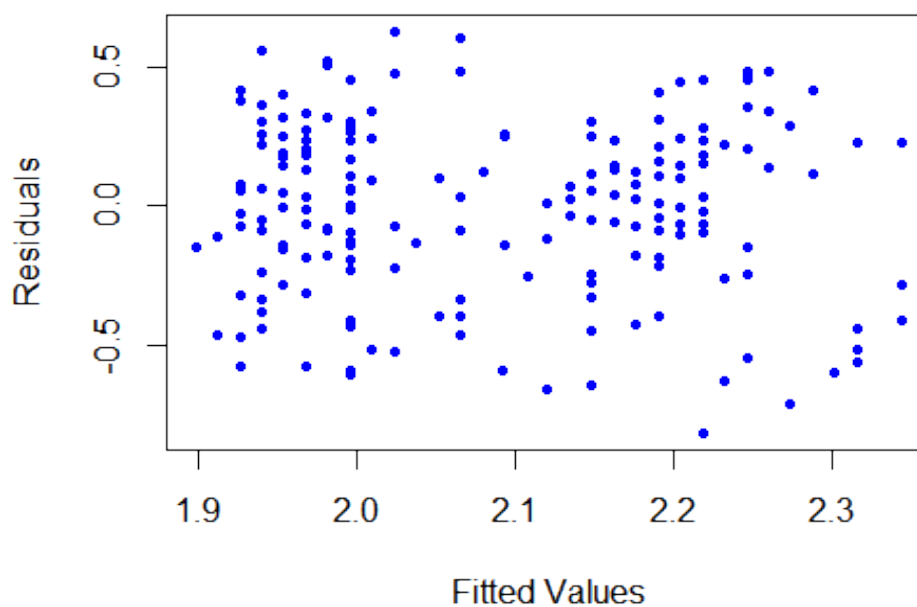


#### 4. BIRTH WEIGHT OF PRETERM BABIES AND ITS ASSOCIATION WITH MATERNAL AGE AND PARITY

##### Linear Regression Analysis

	Estimate	Standard error	P value
Parity	-0.19486	0.04420	<0.0001
Maternal age	0.01398	0.00594	

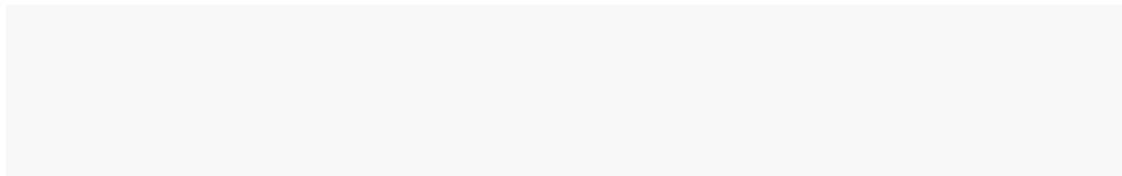
**Residual Plot**



This is a linear regression analysis with birth weight as dependent variable and parity and Maternal age as independent variables. It shows that babies born to primiparous mothers have lesser weight than those born to multiparous mothers.

It also shows that birth weight of babies increased with maternal age. For every 1 year increase in maternal age, the birth weight was seen to be increasing by about 14 grams.

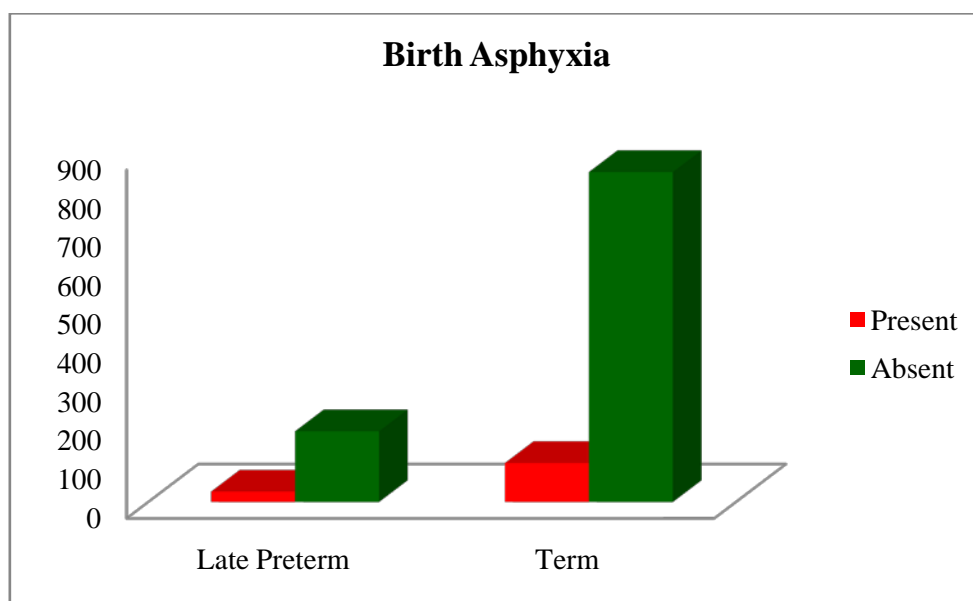
Preterm babies born to primi mothers were having lower birth weight than those born to multi. It was also seen that the birth weight of the babies increased as mothers age increased.



## 5.COMPARISON OF MORBIDITIES IN LATE PRETERM AND TERM

### 5.1.BIRTH ASPHYXIA IN LATE PRETERM AND TERM

	Yes	No	Total
Late Preterm	27	183	210
	12.85%	87.14%	100%
Term	101	852	953
	10.6%	89.4%	100%
Total	128	1035	1163
	11%	89%	100%



### **Chi-square test for equality of proportions**

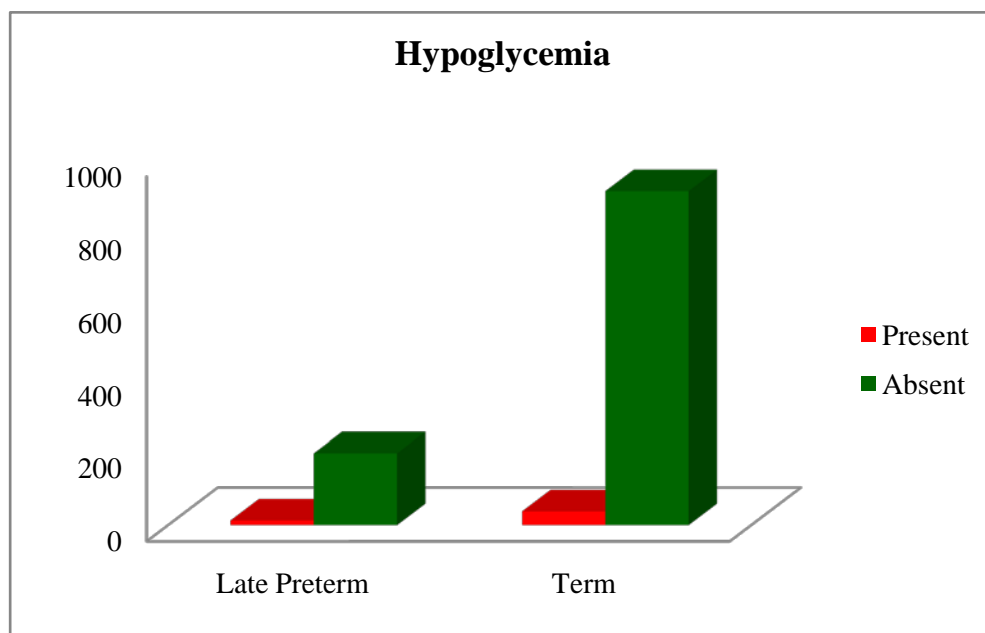
**95 percent confidence interval: -0.02963 0.07481 p-value = 0.4093**

Chi-square test for equality of proportions did not yield a statistical significance for the difference in the proportion of birth asphyxia in preterm and term babies p value 0.4093.

Relative Risk is 1.21 for late preterm to have birth asphyxia. But this is not significant. Confidence Interval = [0.81, 1.80]

## 5. 2.HYPOGLYCEMIA IN LATE PRETERM AND TERM

	Yes	No	Total
Late Preterm	13	197	210
	6.1%	93.9%	100%
Term	38	915	953
	3.9%	96.1%	100%
Total	51	1112	1163
	4.3%	95.7%	100%



### **Chi-square test for equality of proportions**

**95 percent confidence interval: -0.01576 0.05982**

**p-value = 0.2205**

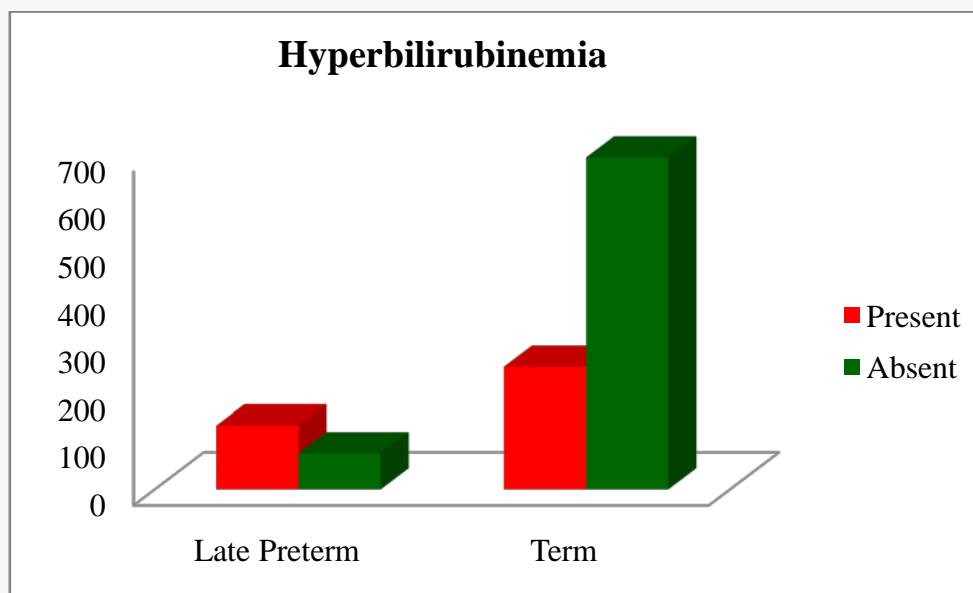
Chi-square test for equality of proportions did not yield a statistical significance for the difference in the proportion of hypoglycemia in preterm and term babies p value 0.2205.

Relative Risk is 1.55 for late preterm to have hypoglycemia. But this is not significant. Confidence Interval = [0.84, 2.86]



### 5.3.HYPERBILIRUBINEMIA IN LATE PRETERM AND TERM

	Yes	No	Total
Late Preterm	134	76	210
	63.8%	37.2%	100%
Term	257	696	953
	26.9%	73.1%	100%
Total	391	772	1163
	33.6%	66.4%	100%



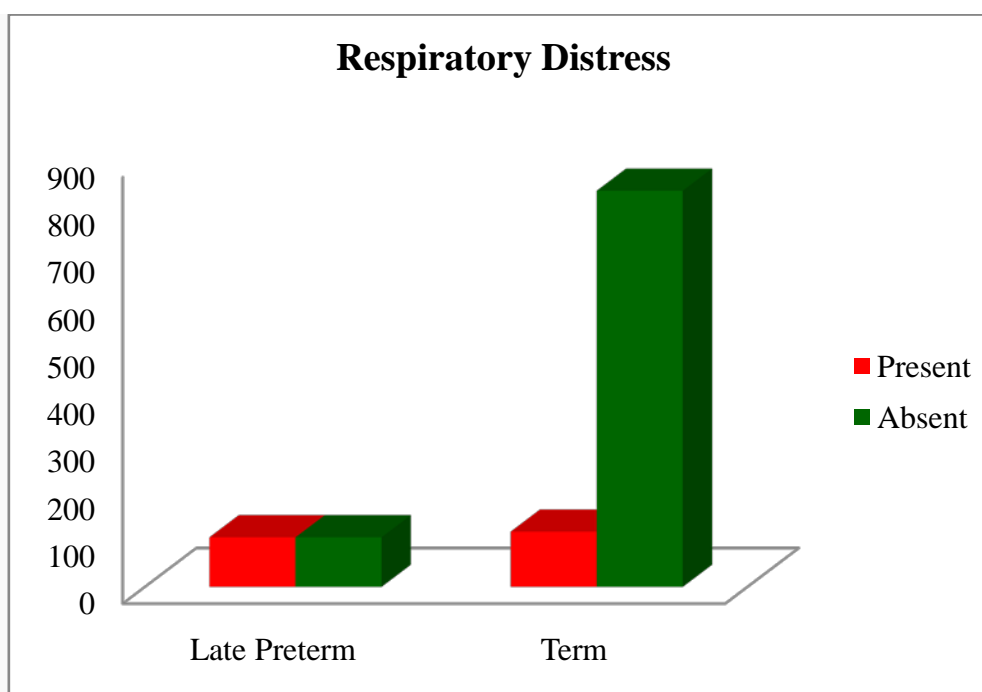
**Chi-square test for the equality of proportion****95 percent confidence interval:****0.2947 0.4422****P value <0.0001**

Hyperbilirubinemia was much more common in preterm babies as compared to term babies. Chi-square test for the equality of proportions yielded a very low p-value of <0.0001.

Relative Risk is 2.37 for late preterm to have hyperbilirubinemia. Confidence Interval = [2.04, 2.74].

#### 5.4. RESPIRATORY DISTRESS IN LATE PRETERM AND TERM

	Yes	No	Total
Late Preterm	105	105	210
	50%	50%	100%
Term	117	836	953
	12.2%	87.8%	100%
Total	222	941	1163
	19.1%	80.9%	100%



### **Chi-square test for equality of proportions**

**95 percent confidence interval: 0.3036 0.4509**

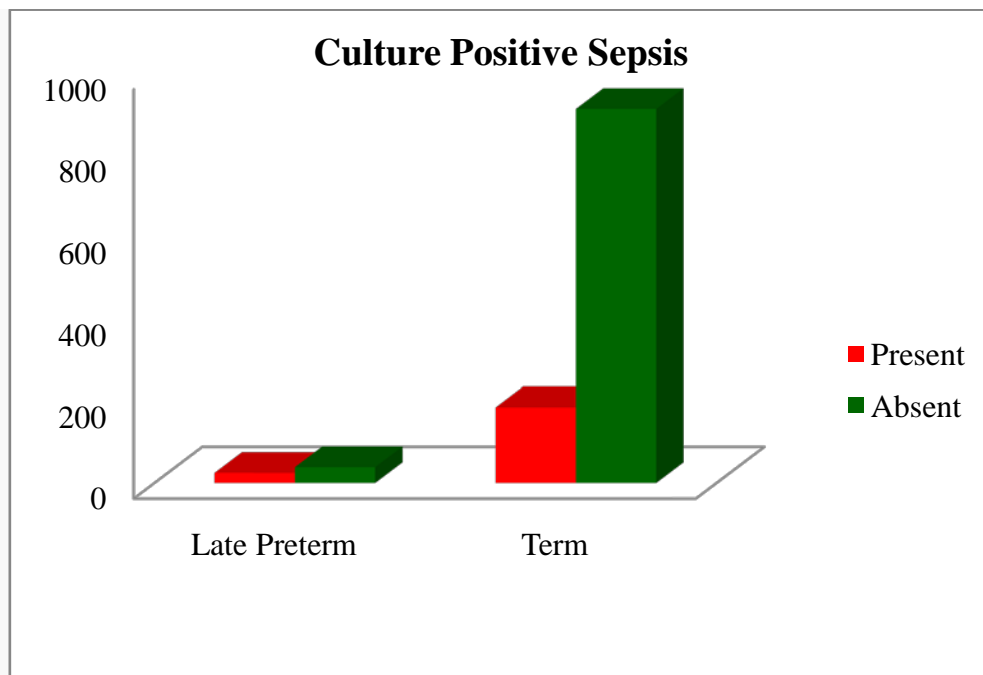
**p value- <0.0001**

Preterm babies were much more prone to respiratory distress than term babies as is evident from the chi-square test for equality of proportions p value <0.0001.

Relative Risk is 4.07 for late preterm to have RDS. Confidence Interval = [3.28, 5.06].

### 5.5.SEPSIS IN LATE PRETERM AND TERM

	Yes	No	Total
Late Preterm	25	185	210
	11.9%	80.1%	100%
Term	39	914	953
	4%	96%	100%
Total	64	1099	1163
	5.5%	94.5%	100%



### **Chi-square test for equality of proportions**

**95 percent confidence interval: 0.02965 0.12660**

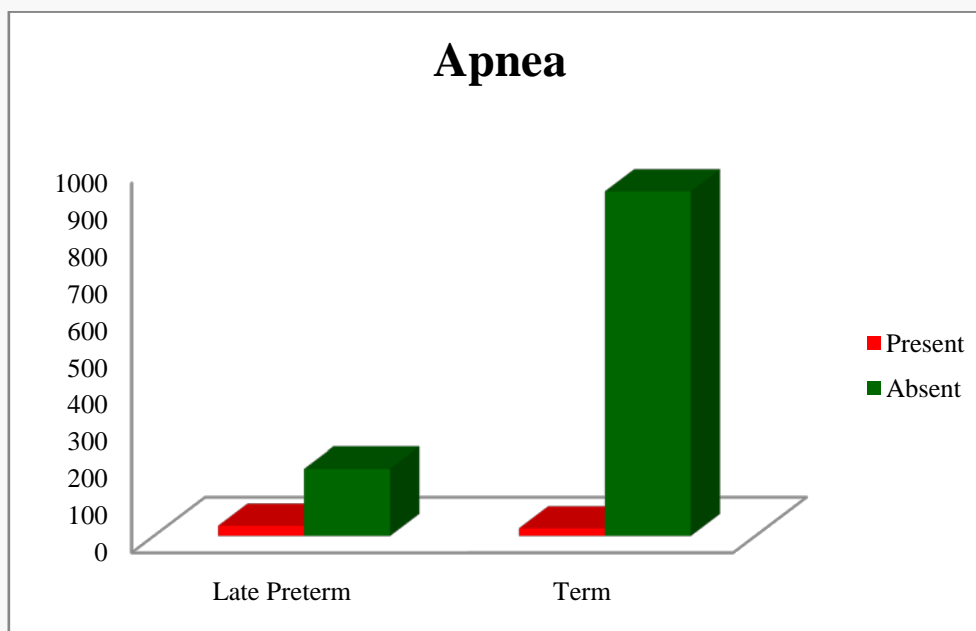
**p value:<0.0001**

25 out of 210 (11.2%) preterm babies had confirmed sepsis whereas only 39 out of the 953 (4.1%) term babies had sepsis as evidenced by p value <0.0001.

Relative Risk is 2.91 for late preterm to have sepsis. Confidence Interval = [1.80, 4.70]

## 6. APNEA IN LATE PRETERM AND TERM

	Yes	No	Total
Late Preterm	28	182	210
	13.3%	86.7%	100%
Term	21	932	953
	2.2%	97.8%	100%
Total	49	1114	1163
	4.2%	95.8%	100%



**Chi-square test for equality of proportions**

**95 percent confidence interval: 0.06148 0.16111**

**p value: 0.0014**

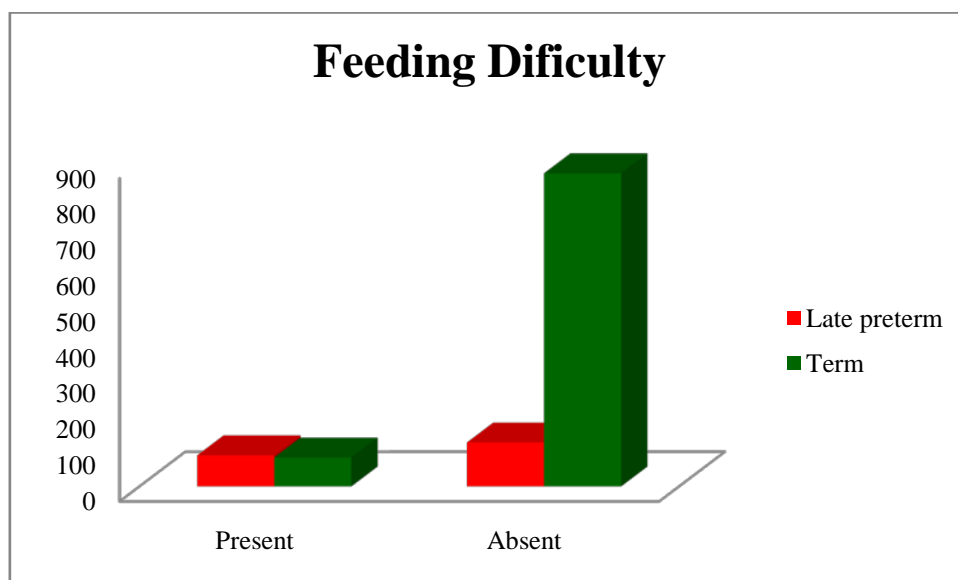
Pre-term babies were prone for developing apnea than term babies as evidenced by p value of 0.0014.

Relative Risk is 6.05 for late preterm to have apnea. Confidence Interval = [3.51, 10.44]



## 5.7. FEEDING DIFFICULTY AND LATE PRETERM

	Present	Absent	Total
<b>Late preterm</b>	87	123	210
	41.4%	58.6%	100%
<b>Term</b>	81	872	953
	8.5%	91.5%	100
<b>Total</b>	168	995	1163
	14.4%	85.6%	100%



**Chi- square test for equality of proportions –**

**95% confidence interval – 0.2574487 0.4011332**

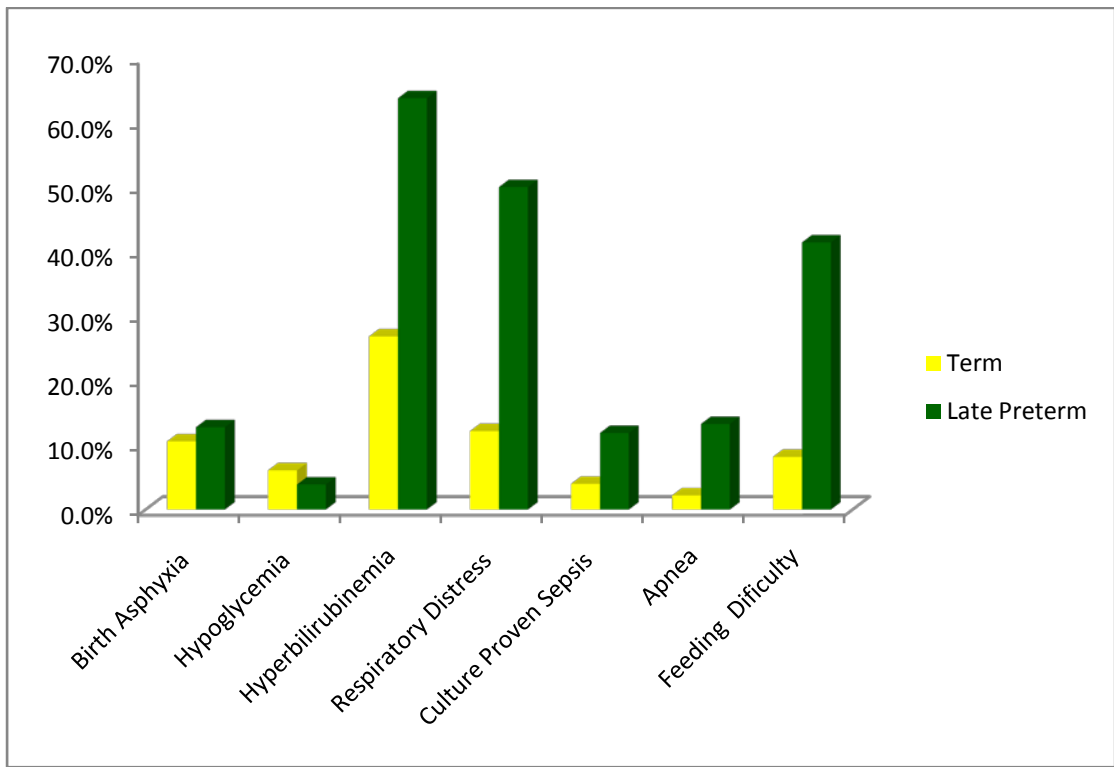
**p value- <0.0001**

Late preterm babies are more prone for feeding difficulty when compared to term babies as evidenced by p value of <0.0001.

Relative Risk is 4.87 for late preterm to have feeding problem.  
Confidence Interval = [3.75, 6.34].

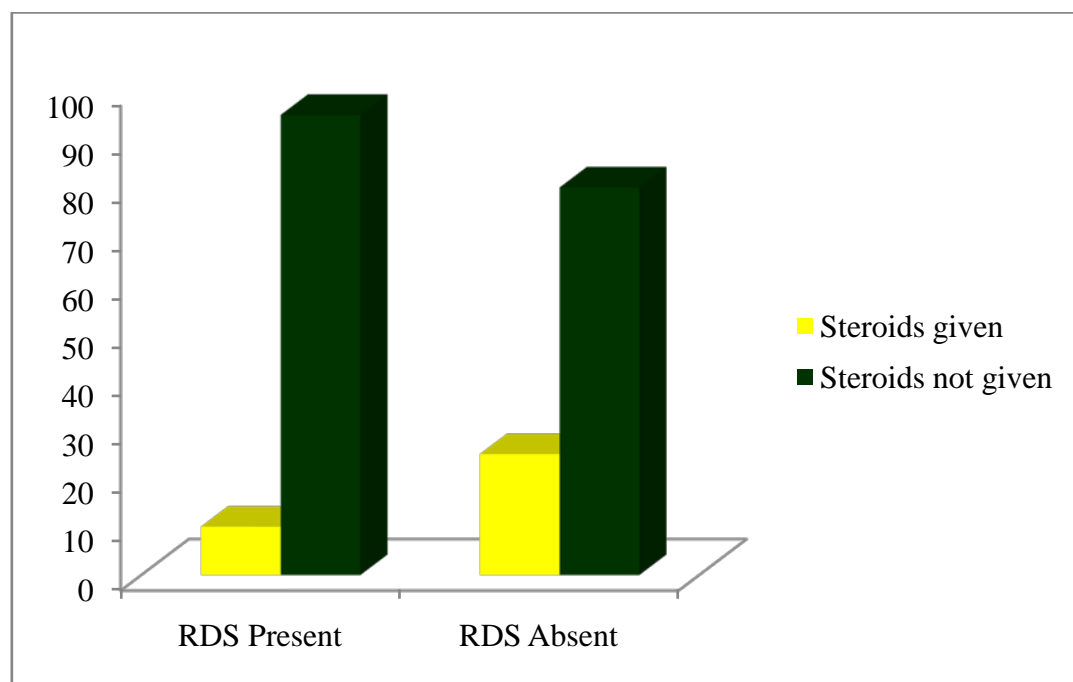
**6.SHORT TERM NEONATAL COMPLICATIONS IN TERM AND LATE PRETERM INFANTS ANALYSED. DATA AS EXPRESSED AS PERCENTAGES.**

	Number of Late preterm	Percentage (out of 210)	Number of term	Percentage (out of 953)	p value	Confidence Interval OR
<b>Sepsis (Culture Positive)</b>	<b>25</b>	<b>11.9 %</b>	<b>39</b>	<b>4%</b>	<b>&lt;0.0001</b>	<b>0.002965- 0.12660</b>
<b>Apnea</b>	<b>28</b>	<b>13.3 %</b>	<b>21</b>	<b>2.2%</b>	<b>0.0014</b>	<b>0.02965- 0.16111</b>
<b>RDS</b>	<b>105</b>	<b>50 %</b>	<b>117</b>	<b>12.2%</b>	<b>&lt;0.0001</b>	<b>0.3036-0.4509</b>
<b>Hyperbilirubinemia</b>	<b>134</b>	<b>63.8 %</b>	<b>257</b>	<b>26.9%</b>	<b>&lt;0.0001</b>	<b>0.2947 – 0.4422</b>
<b>Hypoglycemia</b>	<b>13</b>	<b>6.2 %</b>	<b>38</b>	<b>3.9%</b>	<b>0.2205</b>	<b>-0.01576 – 0.05982</b>
<b>Feeding Problem</b>	<b>87</b>	<b>41.4 %</b>	<b>79</b>	<b>8.2%</b>	<b>&lt;0.0001</b>	<b>0.41428571- 0.08499475</b>
<b>Birth Asphyxia</b>	<b>27</b>	<b>12.8 %</b>	<b>101</b>	<b>10.6%</b>	<b>0.4093</b>	<b>-0.02963- 0.07481</b>



## 7.Steroids and RDS

	RDS Present	RDS Absent	Total
Steroids given	10	25	35
Steroids not given	95	80	175
Total	105	105	210



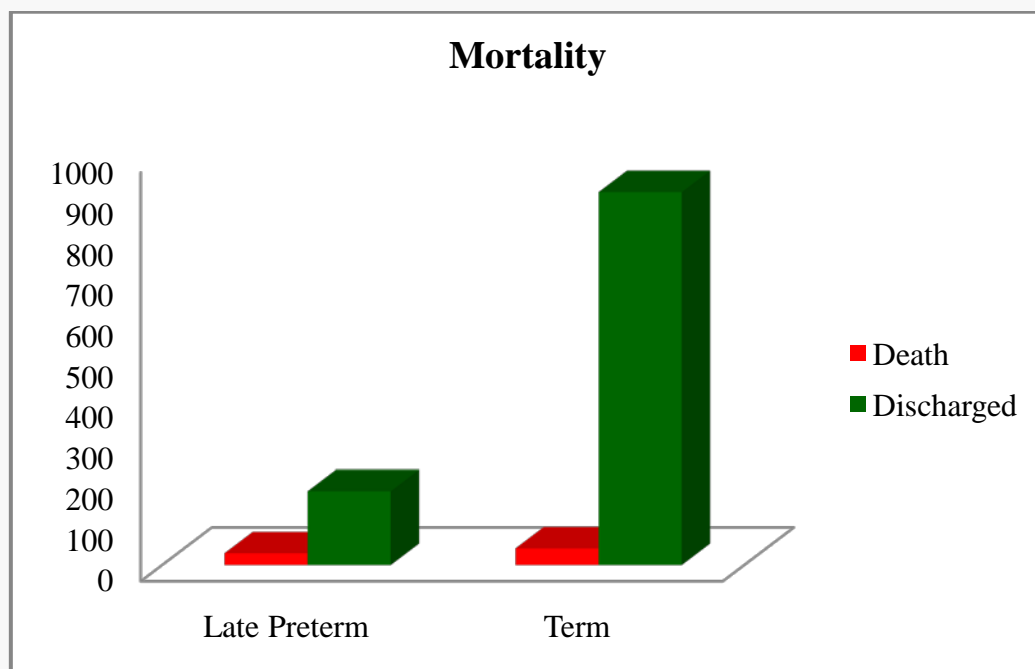
Preterm babies whose mothers received antenatal steroids were 1.56 times more likely to have no incidence of RDS. Confidence Interval = [1.20, 2.03].

Relative risk analysis reduction of RDS by antenatal steroids

**RDS was reduced by 47.36% in preterm babies whose mothers received antenatal steroid.**

## 8. OUTCOME IN LATE PRETERM AND TERM

	Death	Discharged	Total
Late Preterm	29	181	210
	13.8%	86.2%	100%
Term	41	912	953
	4.3%	95.7%	100%
Total	70	1093	1163
	6%	94%	100%



### **Chi-square test for equality of proportions**

**95 percent confidence interval:**

**0.04376 0.14639**

**p value: <0.0001**

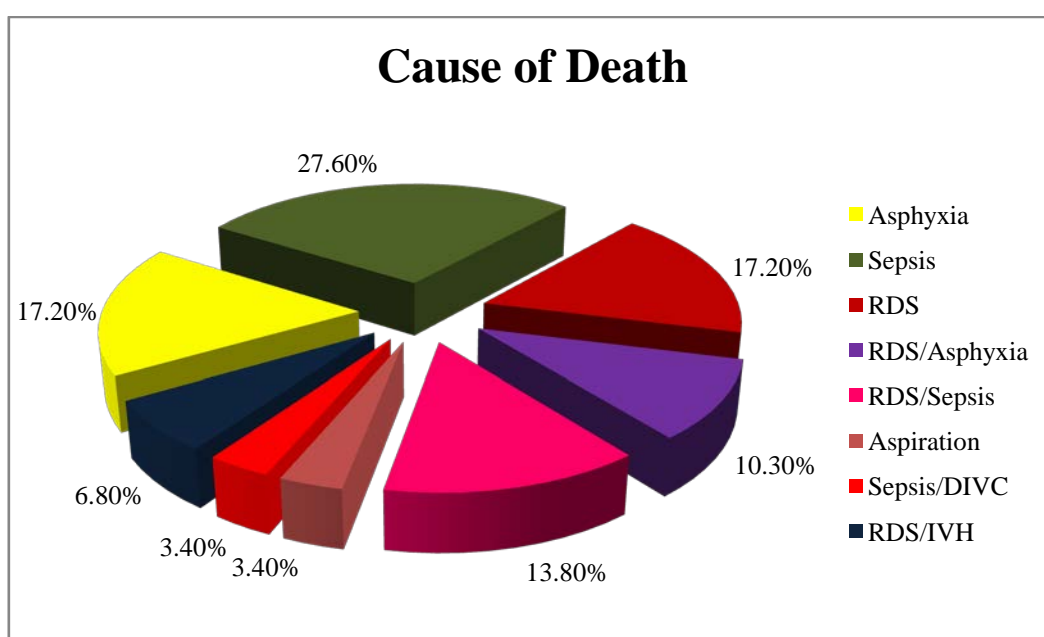
Preterm babies were more prone to be dead in the neonatal period than the term babies (13.8% vs 4.3%) p value of <0.0001

Relative Risk is 3.21 for late preterm to death. Confidence Interval = [2.04, 5.04]



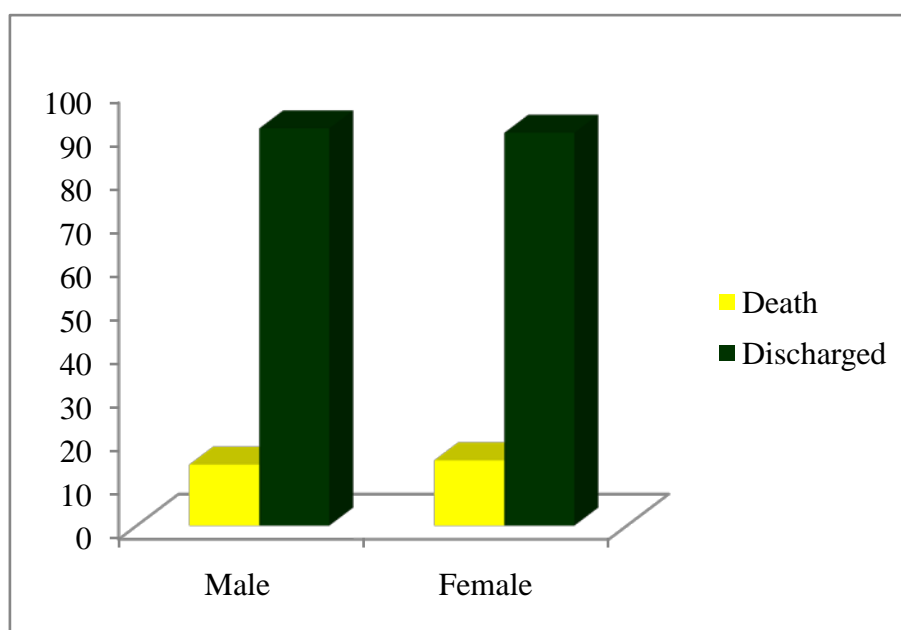
## 9. CAUSE OF DEATH IN LATE PRETERM BABIES

	Number of Late preterm	Percentage (out of 29)
<b>Asphyxia</b>	<b>5</b>	<b>17.2 %</b>
<b>Sepsis</b>	<b>8</b>	<b>27.6 %</b>
<b>RDS</b>	<b>5</b>	<b>17.2 %</b>
<b>RDS/Asphyxia</b>	<b>3</b>	<b>10.3 %</b>
<b>RDS/Sepsis</b>	<b>4</b>	<b>13.8 %</b>
<b>Aspiration</b>	<b>1</b>	<b>3.4 %</b>
<b>Sepsis/DIVC</b>	<b>1</b>	<b>3.4 %</b>
<b>RDS/IVH</b>	<b>2</b>	<b>6.8 %</b>

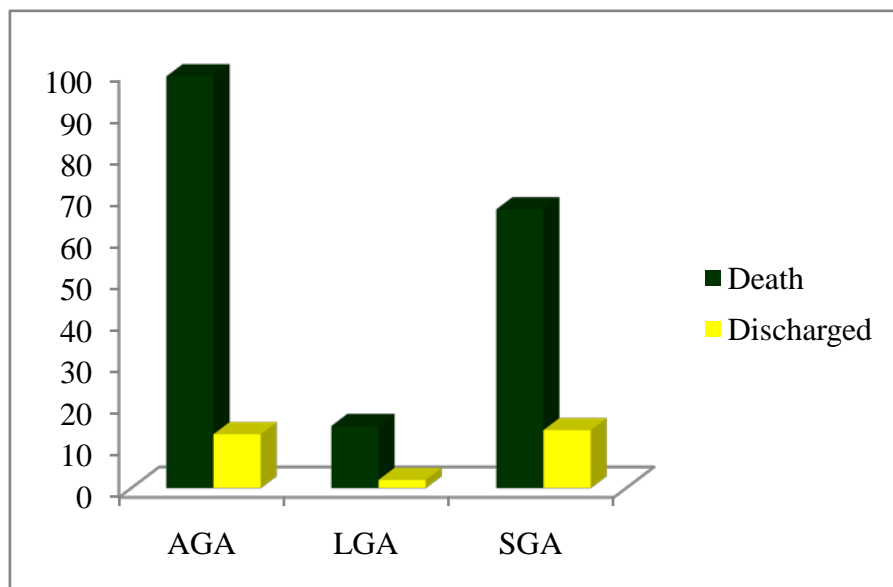


## 10. ASSOCIATION BETWEEN THE BIRTH WEIGHT AND SEX WITH MORTALITY

	Male	Female	Total
Death	14	15	29
Discharged	91	90	181
Total	105	105	210



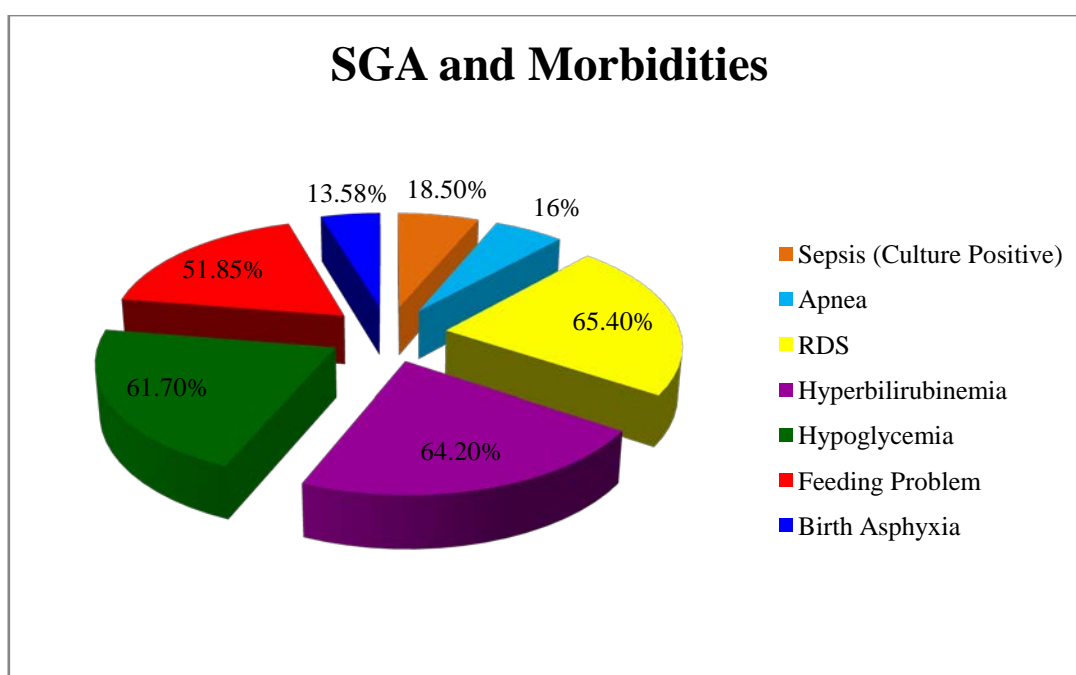
	AGA	LGA	SGA	Total
Death	13	2	14	29
Discharged	99	15	67	181
Total	112	17	81	210



**LINEAR REGRESSION analysis yielded a p value <0.001concluding that here was no association between birth weight (AGA/ SGA/LGA) or gender and mortality in late preterm babies.**

## 11. DISTRIBUTION OF MORBIDITIES AMONG THE VARIOUS WEIGHT GROUPS

	SGA (n=81)	Percentage	p value
<b>Sepsis (Culture Positive)</b>	<b>15</b>	<b>18.5%</b>	<b>0.02</b>
<b>Apnea</b>	<b>13</b>	<b>16%</b>	<b>0.48</b>
<b>RDS</b>	<b>53</b>	<b>65.4%</b>	<b>0.00016</b>
<b>Hyperbilirubinemia</b>	<b>52</b>	<b>64.2%</b>	<b>0.9086</b>
<b>Hypoglycemia</b>	<b>5</b>	<b>61.7%</b>	<b>0.599</b>
<b>Feeding Problem</b>	<b>42</b>	<b>51.85%</b>	<b>0.0063</b>
<b>Birth Asphyxia</b>	<b>11</b>	<b>13.58%</b>	<b>0.83</b>

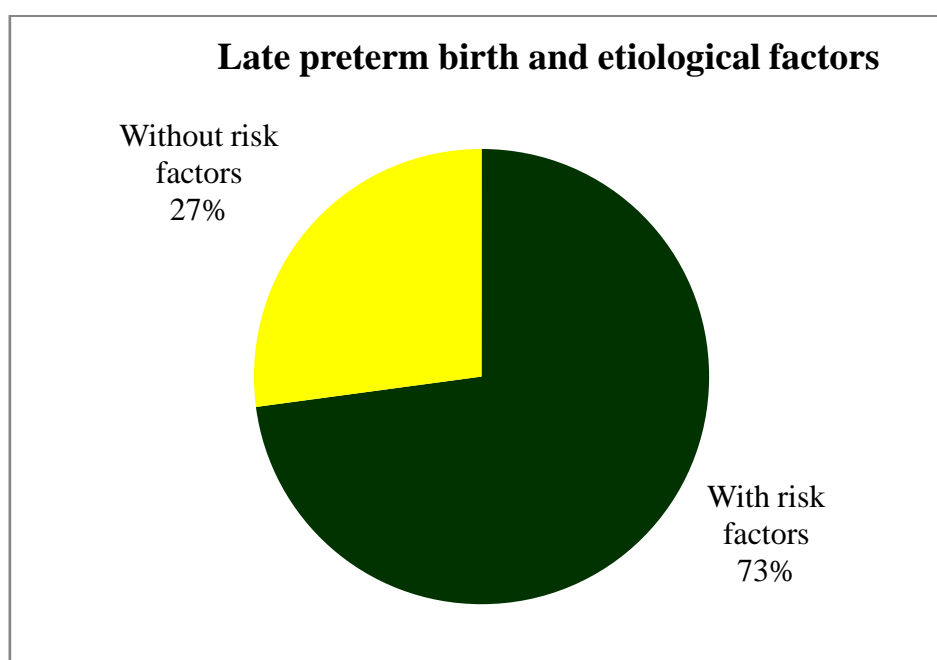


- \* No association between birth asphyxia and AGA/SGA/LGA as evidenced by pvalue 0.83.
- \* SGA babies were more at risk to have difficulty in feeding problem as shown by p value 0.0063.
- \* No association between hypoglycemia and AGA/SGA/LGA as evidenced by p value of 0.599.
- \* No association between hyperbilirubinemia and AGA/SGA/LGA (p value 0.9086).
- \* SGA babies were more at risk to develop RDS (pvalue 0.00016)
- \* No association between apnea and AGA/SGA/LGA (p value 0.48)
- \* SGA babies were more at risk to have sepsis pvalue- 0.02.

## 12.LATE PRETERM BIRTH AND ETIOLOGICAL FACTORS ANALYSIS

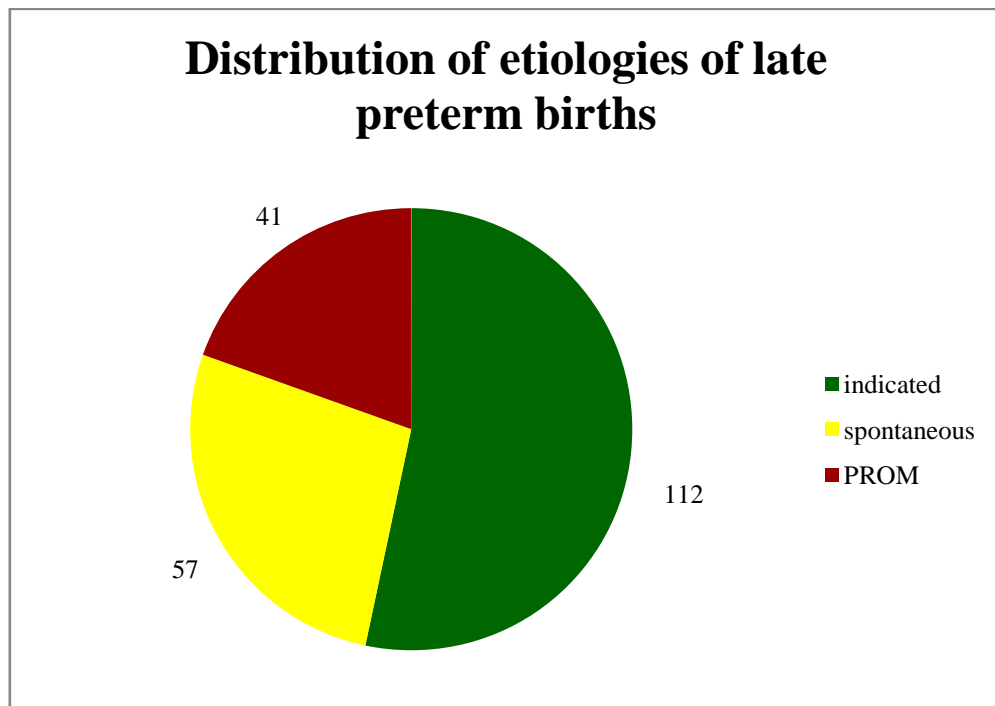
### 12.1 LATE PRETERM BIRTHS AND ETIOLOGICAL FACTORS; FREQUENCY TABLE

Late preterms	Number of cases
With risk factors	153
	72.85%
Without risk factors	57
	27.15%
Total	210



## 11.2 DISTRIBUTION OF VARIOUS ETIOLOGICAL FACTORS

Etiology	Number of late preterm births
Indicated	112
	53.3%
Spontaneous	57
	27.1%
PROM	41
	19.5%
Total	153

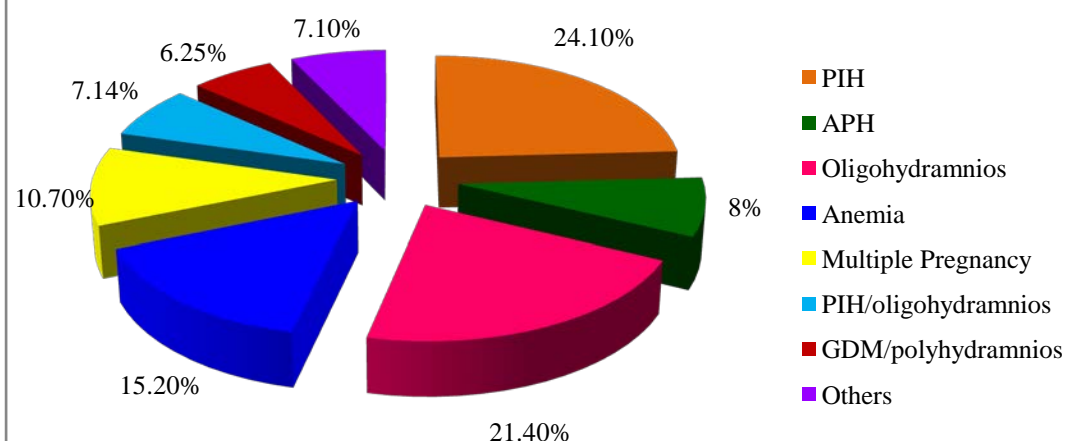


### 11.3 DISTRIBUTION OF ETIOLOGICAL FACTORS IN INDICATED LATE PRETERM DELIVERIES

Etiological factor in indicated late preterm births	Number of late preterms
PIH	27
	24.1%
APH	9
	8%
Oligohydramnios	24
	21.4%
Anemia	17
	15.2%
Multiple Pregnancy	12
	10.7%
PIH/oligohydramnios	8
	7.14%
GDM/polyhydramnios	7
	6.25%
Others	8
	7.1%
Total	112



## Late Preterms and Indicated Delivery



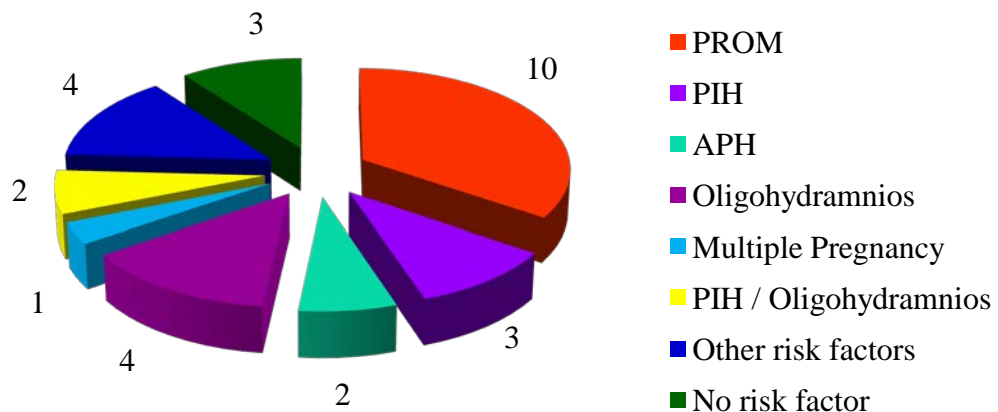
153 cases were having some maternal risk factors. Rest 57 did not have any maternal risk factors. Out of the 153, 41 had PROM, 27 had PIH, 9 had APH, 24 had oligohydramnios and 12 had multiple pregnancy, 17 had anemia, 7 had GDM, PIH and oligohydramnios both were seen in 8 cases. Remaining 8 cases had other etiological factors like PROM and oligohydramnios, PIH and PROM, PIH and APH.

#### **11.4. SEPSIS CULTURE PROVEN AND ETIOLOGICAL FACTORS**

<b>Etiological factor</b>	<b>Present</b>	<b>Absent</b>	<b>Total</b>	<b>p value</b>
PROM	10	31	41	0.0073
PIH	3	24	27	0.4541
APH	2	7	9	0.3427
Oligohydramnios	4	20	24	0.1546
Multiple Pregnancy	1	11	12	0.4791
PIH / Oligohydramnios	2	6	8	0.0436
Other risk factors	4	28	32	
No risk factor	3	54	57	

**Late preterm babies born to mothers with PROM and PIH/Oligohydramnios were more at risk to have sepsis as evidenced by p value <0.05.**

### Sepsis and Etiological Factors



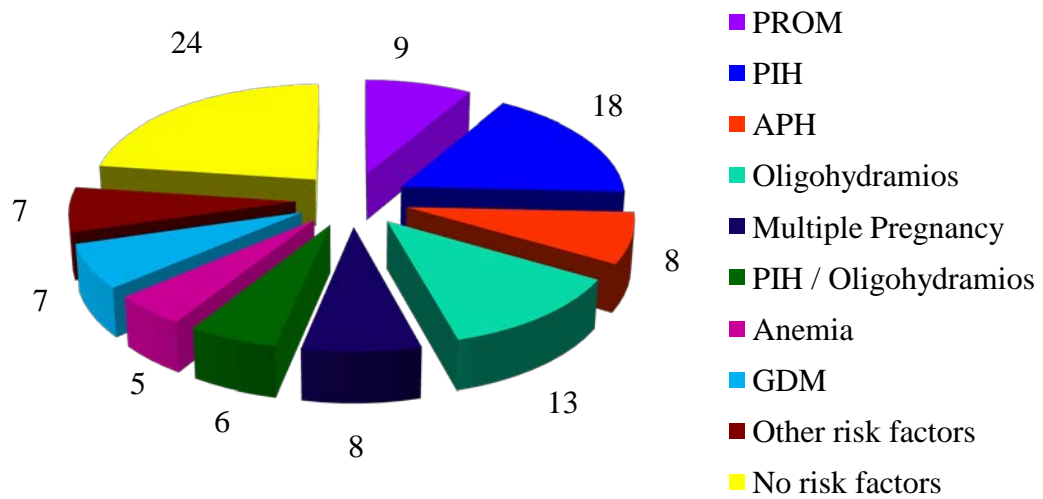
## 11.5 RESPIRATORY DISTRESS AND MATERNAL RISK

### FACTORS

Etiological factor	Respiratory distress present	Absent	Total	p value
PROM	9	32	41	0.9451
PIH	18(66.7%)	9	27	<0.0001
APH	8(88.9%)	1	9	0.00401
Oligohydramnios	13 (54.2%)	11	24	0.00027
Multiple Pregnancy	8 (66.7%)	4	12	0.0089
PIH / Oligohydramnios	6 (75%)	2	8	0.04236
Anemia	5	12	17	0.088
GDM	7	0	7	0.990
Other risk factors	7	0	7	
No risk factors	24	33	57	
Total	105	105	210	

**Late preterm babies born to mothers with PIH / Eclampsia / pre-eclampsia, Oligohydramnios, APH, multiple pregnancy, PIH / Oligohydramnios were more at risk to have RDS as evidenced by p value < 0.05.**

### Respiratory Distress and Maternal Risk Factors

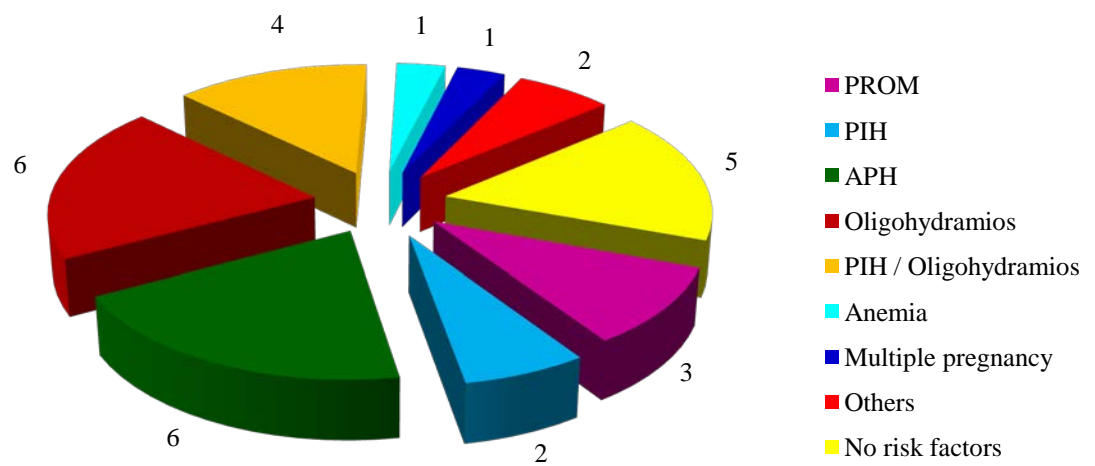


## 11.6 BIRTH ASPHYXIA AND MATERNAL RISK FACTORS

Etiological factor	Birth asphyxia		Total	p value
	present	Absent		
PROM	3	38	41	0.9739
PIH	2	25	27	0.9652
APH	6(66.7%)	3	9	0.0365
Oligohydramnios	6(33.3%)	18	24	0.0002
PIH / Oligohydramnios	4(50%)	4	8	0.0219
Anemia	1	16	17	0.8572
Multiple pregnancy	1	10	11	0.9932
Others	2	14	16	
No risk factors	2	55	57	
Total	27	183	210	

**Late pre-term babies born to mothers with oligohydramnios, APH and PIH/oligohydramnios were more at risk to have birth asphyxia as evidenced by p value < 0.05**

## Birth Asphyxia and Maternal Risk Factors



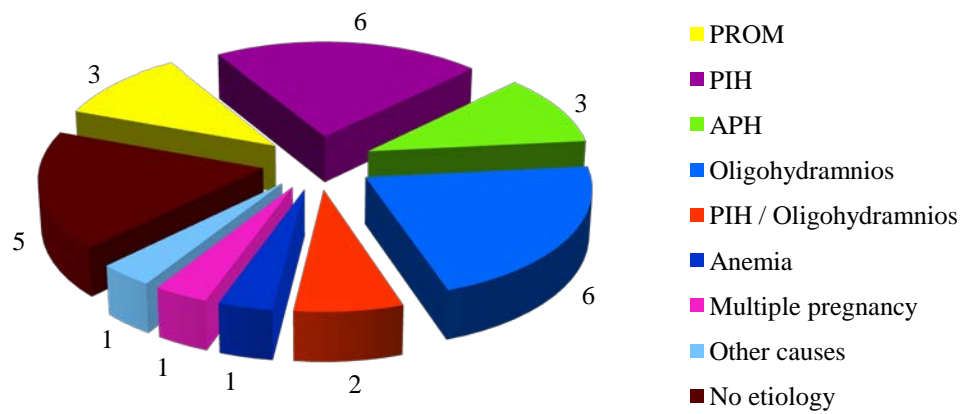
## 11.7 APNEA AND MATERNAL RISK FACTORS

Etiological factor	Apnea present	Absent	Total	p value
PROM	3	38	41	0.314
PIH	6	21	27	0.331
APH	3(33.3%)	6	9	0.017
Oligohydramnios	6	18	24	0.992
PIH / Oligohydramnios	2	6	8	0.058
Anemia	1	16	17	0.992
Multiple pregnancy	1	11	12	0.993
Other causes	1	14	15	
No etiology	5	52	57	
Total	28	182	210	

**Late preterm babies born to mothers with APH were more at risk to have apnea p value 0.0014.**



## Apnea and Maternal Risk Factors



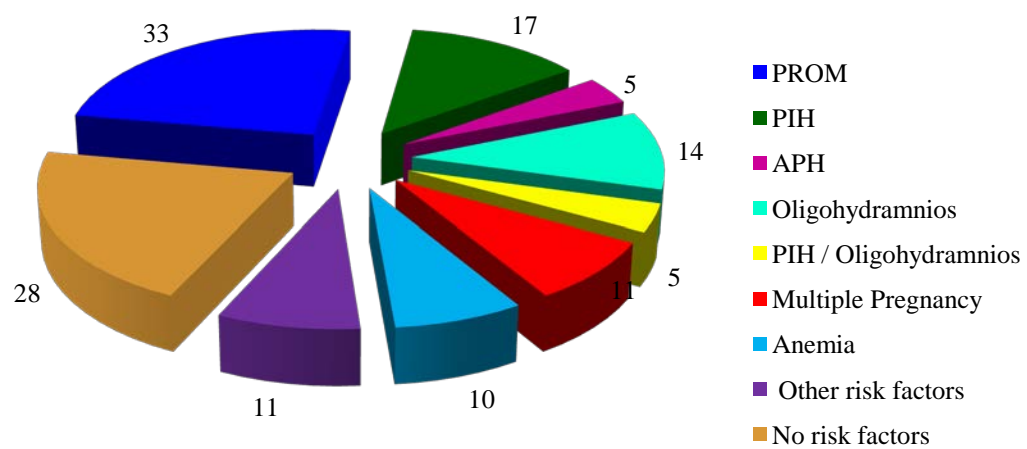
## 11.8 HYPERBILIRUBINEMIA AND MATERNAL RISK

### FACTORS

Etiological factor	Hyperbilirubinemia present	Absent	Total	p value
PROM	33 (80.5%)	8	41	0.012
PIH	17	10	27	0.269
APH	5	4	9	0.757
Oligohydramnios	14	10	24	0.495
PIH / Oligohydramnios	5	3	8	0.511
Multiple Pregnancy	11(91.67%)	1	12	0.026
Anemia	10	7	17	0.525
Other risk factors	11	6	17	
No risk factors	28	29	57	
Total	134	76	210	

**Late preterm babies born to mothers with PROM and multiple pregnancy were at more risk to have hyperbilirubinemia.**

## Hyperbilirubinemia and Maternal Risk Factors

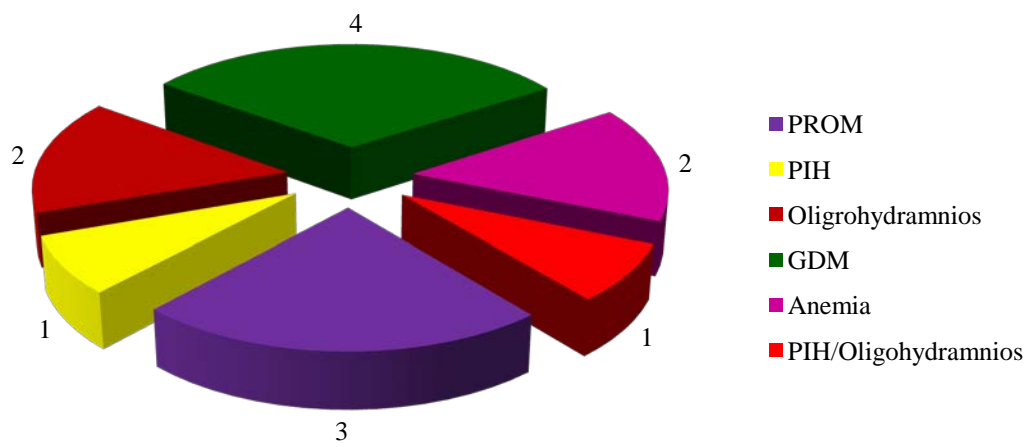


## 11.9 HYPOGLYCEMIA AND MATERNAL RISK FACTORS

Etiological factor	Hypoglycemia		Total	p value
	present	absent		
PROM	3	38	41	0.99
PIH	1	26	27	0.99
Oligohydramnios	2	22	24	0.99
GDM	4	3	7	1.00
Anemia	2	15	17	1.00
PIH/oligohydramnios	1	7	8	1.00
Other risk factors	0	29	29	
No risk factors	0	57	57	
Total	13	197	210	

**There was no association between hypoglycemia in late preterm babies and maternal risk factors**

## Hypoglycemia and Maternal Risk Factors

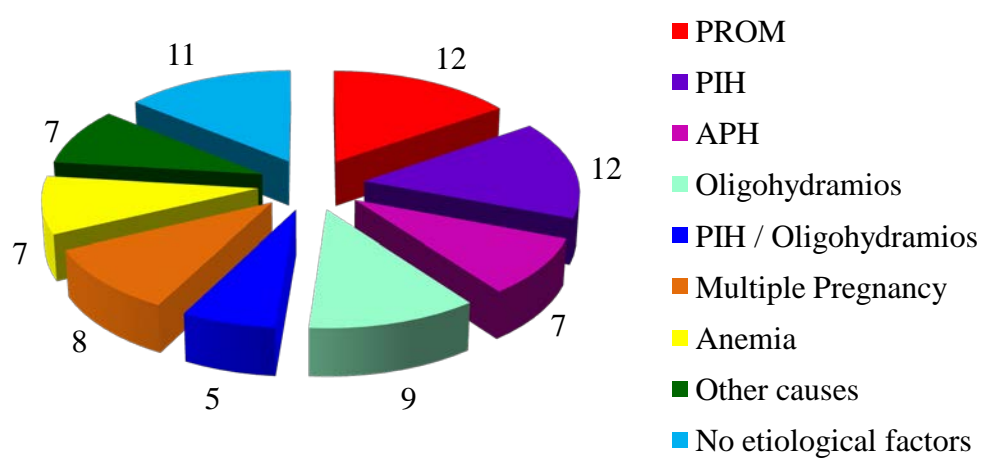


## 11.10 FEEDING PROBLEM AND MATERNAL RISK FACTORS

Etiological factor	Feeding problem present	Absent	Total	p value
PROM	12	29	41	0.2734
PIH	12(44.4%)	15	27	0.0015
APH	7( 77.7%)	2	9	0.0022
Oligohydramnios	9	15	24	0.0959
PIH / Oligohydramnios	5( 62.5%)	3	8	0.0170
Multiple Pregnancy	8(66.7%)	4	12	0.0026
Anemia	7	10	17	0.0778
Other causes	7	16	25	
No etiological factors	11	45	57	
Total	87	123	210	

**Late preterm babies born to mothers with PIH/eclampsia/pre-eclampsia, APH, multiple pregnancy and PIH/oligohydramnios were more at risk to have feeding problems were more at risk to have feeding problems**

### Feeding Problem and Maternal Risk Factors



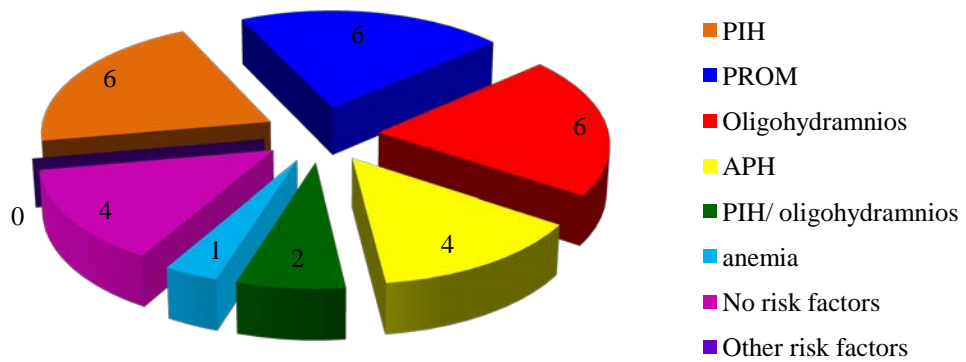
### 11.11 DEATH OF LATE PRETERM BABIES AND MATERNAL RISK FACTORS

<b>Etiological factor</b>	<b>Number of deaths</b>	<b>Number of discharges</b>	<b>Total</b>	<b>p value</b>
<b>PIH</b>	6	21	27	0.026
<b>PROM</b>	6	35	41	0.974
<b>Oligohydramnios</b>	6	18	24	0.036
<b>APH</b>	4	5	9	0.033
<b>PIH/ Oligohydramnios</b>	2	6	8	0.130
<b>Anemia</b>	1	16	17	0.992
<b>No risk factors</b>	4	53	57	
<b>Other risk factors</b>	0	27	27	
<b>Total</b>	29	181	210	

Late preterm babies born to mothers with PIH/Eclampsia/pre-eclampsia, oligohydramnios and APH were more at risk to be dead than babies born to mothers with other risk factors or no risk factors.



## Mortality and Late Preterm



## 6. RESULTS

There were 1540 live births in Tirunelveli Medical College during the study period. Of which 230 (14.93%) were born late preterm and 1004 babies (65.1%) were born term. Late preterm births accounted for 43% of all the preterm births during the study. Preterm births were on a higher side in our hospital, as being a higher centre of Obstetrics and Neonatal care most of the preterm deliveries in the district occurred in our hospital. Of the the total live born babies 210 late preterm and 953 term babies were included in the study. Remaining term and late preterm infants were excluded due to major congenital malformations. All the infants included in the study were followed up in the Neonatal Intensive Care unit or maternity ward until discharge. As per the institutional protocol all the late preterm infants were admitted in the neonatal intensive care unit.

The mean birthweight in the late preterm group was 2.08 kg and among the term infants was 2.87 kg. 53.3% of the late preterms and 68.8% of the term babies were AGAs while 38.6% of late preterms and 28.1% of the term babies were SGAs. There was no significant difference in the gender distribution and parity among the late preterm and term babies. The need for caesarean section was more among the late preterm babies as 62.7% of the late preterm babies were born by caesarean section

while only 36.3% of the term needed caesarean section. Preterm babies born to primiparous mothers were having lower birth weight than those born to multiparous. It was also seen that the birth weight of the babies increased as mothers age increased.

The neonatal morbidities compared were perinatal asphyxia, hypoglycaemia, respiratory distress, hyperbilirubinemia, culture proven sepsis, apnea and feeding difficulty. 188 out of 210 late preterm babies had atleast one of the neonatal morbidities( 89.5%). In the study 12.85% of the late preterm babies had birth asphyxia while only 10.6% of the term babies had birth asphyxia. Hypoglycemia was seen in 6.1% of late preterm babies while only 3.9% of the term babies had hypoglycaemia. The incidence of hyperbilirubinemia in our study group was 33.6%, with 63.8% of late preterms having hyperbilirubinemia while only 26.9% of the term babies were having hyperbilirubinemia. In this study 50% of the late preterm had respiratory distress while only 12.2% of the term neonates were admitted with respiratory distress. Apnea was seen in 13.3% of late preterms while only 2.25 of term babies had apneic episodes. Mortality rate among late preterm was 13.8% compared to 4.3% in term neonates and the commonest cause of death was sepsis (27.6%) followed by birth asphyxia (17.2%) and RDS (17.2%).

In this study etiological factors associated with late preterm deliveries were analysed and indicated late preterm births (occurring following obstetric or fetal indications) constituted the largest group (53.3%) followed by spontaneous preterm deliveries (where no etiology could be identified) 27.1% and PROM 19.5%. Among the indicated deliveries most common etiological factor seen in the study was PIH/ preeclampsia/ eclampsia (24.1%) and oligohydramnios (21.4%) In this study culture proven sepsis was found to be more common in late preterm births following PROM (24.4%) and preterm births complicated by PIH and oligohydramnios (25%). Respiratory distress was more commonly associated with APH (88.9%), followed by PIH and oligohydramnios (75%) multiple pregnancy (66.7%) PIH (66.7%) and oligohydramnios (54.2%). Birth asphyxia was found to be more common in late preterm births complicated by APH (66.7%), followed by PIH and oligohydramnios, oligohydramnios alone (66.7%). Apnea was more commonly associated with late preterm births complicated by APH (33.3%). Hyperbilirubinemia was seen frequently in preterm births complicated by PIH (81.5%) PROM (80.5%), multiple pregnancy (66.7%). No association was found between hypoglycaemia and indicated late preterm delivery. Feeding problems were found to be more common in late preterm births complicated by APH (88.9%) followed by multiple pregnancy (66.7%), PIH (63%), PIH and oligohydramnios (50%). Late

preterm babies born following antenatal complications like APH (44.4%), oligohydramnios(33.3%), PIH( 22.2%), were more likely to be dead in the immediate neonatal period than others. the gestational age wise comparison among late preterms was not done as the number of cases in the 36 weeks group was limited which can cause erroneous results.

## **7. DISCUSSION**

This study demonstrated the magnitude of the morbidities to which the late preterm babies were exposed and the etiological factors leading to preterm deliveries and their association with the outcome.

The need for caesarean section was more among the late preterm babies as 62.7% of the late preterm babies were born by caesarean section while only 36.3% of the term needed caesarean section. This was similar to the study conducted by Laughon et al who reported similar findings that a considerable amount of late preterms were born by caesarean.

188 out of 210 late preterm babies had atleast one of the neonatal morbidities (89.5%) In a study conducted by Jaiswal et al demonstrated that 70.8% of late preterm had any one of the neonatal morbidities. The higher percentage in our study might be because we admitted all the late preterm babies and they were thoroughly screened for all other morbidities. Melamed et al also found that compared with full term infants, spontaneous late preterm delivery was independently associated with increased risk of neonatal morbidity, including respiratory distress syndrome, sepsis, intraventricular hemorrhage, hypoglycaemia and jaundice requiring photo therapy. Tomashek et al found that late preterms

were 1.5 times more likely to require hospital related care and 1.5 times more likely to be readmitted than term infants.

In our study it was found out that neonatal morbidities like respiratory distress, hyperbilirubinemia, apnea, feeding difficulty, culture proven sepsis were common among late preterms when compared to term neonates. There was no significant difference in the occurrence of perinatal asphyxia and hypoglycaemia among late preterms and term babies. Hyperbilirubinemia requiring phototherapy was the most common morbidity in late preterm (63.8%) followed by respiratory distress (50%) and feeding difficulty (41.4%). The study conducted by Shapiro Mendoza et al found out that respiratory distress syndrome, persistent pulmonary hypertension of newborn, hyperbilirubinemia, intraventricular hemorrhage, culture proven sepsis, temperature instability, hypoglycaemia, dehydration and feeding difficulties occurred more frequently in late preterms than term babies. In the study relative risk % was also calculated and found out that compared to term neonates late preterms are 2.91 times at risk of developing sepsis, 4.07 times at risk of developing respiratory distress, 1.21 times at risk of developing birth asphyxia (but this is not significant), 6.05 times at risk of developing apnea, 1.55 times at risk of developing hypoglycaemia (but this is not significant), 2.37 times at risk of developing hyperbilirubinemia and 4.87

times at risk of developing feeding problem. In the study done by Jaswin et al late preterms were found to be 7.5 times at risk of respiratory morbidity, 3.4 times at risk of hyperbilirubinemia, 4.5 times and 3.2 times higher risk for hypoglycaemia and sepsis. Commonest cause of death among the late preterm babies was sepsis (27.6%) followed by asphyxia (17.2%) and RDS (17.2%). In the study we found out that late preterms are 3.21 times at risk of death when compared to term babies. Other authors have reported relative risk ranging from 1.5 to 6.3 similar to our study.

The etiology of late preterm births was analysed in depth in this study considering all the possible etiological factors as PROM, PIH, Oligohydramnios, APH, Anemia, multiple pregnancy, GDM with polyhydramnios, previous preterm delivery, family history of preterm delivery and combination of risk factors were also analysed. In this study indicated late preterm births constituted the largest group (53.3%) followed by spontaneous preterm deliveries (where no etiology could be identified) constituted 27.1% of total late preterm births and PROM accounted for 19.5% of total late preterm births. Among the indicated deliveries most common etiological factor seen in the study was PIH (17.6%) and oligohydramnios (15.7%) and no risk factors could be identified in 17.15%. A similar study conducted by Reddy et al



categorised the etiology of late preterm births into maternal medical complications (14%), obstetric complications (16%), major congenital anomalies (1%), isolated spontaneous deliveries (49%) and those with no recorded indications (23.2%). In our study culture proven sepsis was found to be more common in late preterm births following PROM (24.4%) and PIH and oligohydramnios (25%). Respiratory distress was more commonly associated with APH (88.9%), followed by PIH and oligohydramnios (75%) multiple pregnancy (66.7%) PIH (66.7%) and oligohydramnios (54.2%). Birth asphyxia was found to be more common in late preterm births complicated by APH (66.7%), followed by PIH and oligohydramnios, oligohydramnios alone (66.7%). Apnea was more commonly associated with late preterm births complicated by APH (33.3%). Hyperbilirubinemia was seen frequently in preterm births complicated by PIH (81.5%) PROM (80.5%), multiple pregnancy (66.7%). no association was found between hypoglycaemia and complicated late preterm delivery. feeding problems were found to be more common in late preterm births complicated by APH (88.9%) followed by multiple pregnancy (66.7%), PIH (63%), PIH and oligohydramnios (50%). late preterm babies born following ante natal complications like APH (44.4%), oligohydramnios (33.3%), PIH (22.2%), were more likely to be dead in the immediate neonatal period

than others. There has not been any previous Indian study comparing the morbidities and mortality in indicated late preterm births.

**ADVANTAGES OF THE STUDY-** This study is one of the largest prospective study comparing the mortality and short term morbidity pattern in late preterm and term neonates in Indian scenario. It is one of the first studies aimed at evaluating the etiological factors associated with late preterm delivery in India. In the present study association of the various etiological factors with neonatal mortality and morbidities was also thoroughly analysed.

**LIMITATIONS OF THE STUDY-** This study has focused mainly upon the morbidities and mortalities occurring immediately after birth, long term mortality and morbidities like effect on growth and development, neuro behavioural outcome were not analysed. The need for hospital readmission was also not evaluated.

The gestational age wise stratification of mortality and morbidity was not done as the study population was grossly distributed unevenly with 36 weeks group constituting only 4.2% of the total late preterms. The causes of respiratory morbidities were not analysed. The rare complications of late preterms like necrotising enterocolitis, intraventricular hemorrhage were not analysed.

## **8. CONCLUSION**

Understanding the morbidity risk among late preterm infants not only helps in anticipating and managing these at risk newborns but also help in determining the timing of discharge and follow up after discharge and also helps in guiding non emergency obstetric intervention decisions. In this study we found out that the various neonatal morbidities and mortalities depended upon the etiological factors. Because the actual etiological factor is recognized as a determinant in neonatal outcome, more attention should be devoted to determine the etiology of late preterm births and prevent unnecessary late preterm births.

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## **PROFORMA**

### **NEONATAL VARIABLES-**

- Name of the baby-
- Age in days or hours of life
- Sex
- Gestational age
- IP number
- Date and time of delivery
- Birth weight
- AGA/ SGA/ LGA
- Mode of delivery-
- Indication for Caesarean section
- Perinatal Asphyxia
- Hypoglycemia
- Hyperbilirubinemia
- Respiratory problems  
Respiratory distress,  
need for oxygen,  
surfactant administration  
mechanical ventilation
- Apnea

- Sepsis probable / culture proven
- Feeding problems
- Death/ discharge
- Cause of death

## **MATERNAL VARIABLES**

- Age
- Parity-
- Antenatal steroids- given or not
- Any Etiological factors for late preterm deliveries

PPROM-

Medical illnesses like PIH/GDM/ Anemia-

Maternal infections like urinary tract infections

Chronic maternal diseases-

Oligohydramnios-

APH-

Multiple pregnancy-

Chorioamnionitis,-

Previous preterm births,

Family history of preterm deliveries.

Sl.NO	Name	Gestat ional Age	Sex	Maternal Age	Birth Weigh t	SGA / LGA / AGA	Parity	Mode of Delivery	Indication for LSCS	Maternal Risk actors	Steroids	Birth Asphyxia	Hypogly cemia	Hyperbilir ubinemia	Respiratory Distress	Oxygen Administra tion	Surfactant	Ventilla tion	Probable Sepsis	Sepsis Culture Positive	Apnea	Feeding Difficulty problem	Dischargedd/ Death	Cause of Death
1	B/o. Seetha	34	M	22	2kg	AGA	PRIMI	LN		Multiple pregnancy	YES	NO	NO	YES	YES	YES	NO	NO	YES	NO	NO	YES	Discharged	
2	B/o. Seetha	34-36	F	22	2.13	AGA	PRIMI	LN		Multiple pregnancy	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
3	B/o. Arul lakshmi	34-36	M	20	2kg	AGA	PRIMI	LN		PIH		NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
4	B/o. Rajeswari	34	M	36	1.93	SGA	MULTI	LN		Elderly PRIMI	YES	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO	Discharged	
5	B/o. Shanthi	34-36	F	25	1.98	SGA	PRIMI	LSCS	PPROM	PPROM	YES	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	Discharged	
6	B/o. Sakunthala	34-36	F	20	2.3	AGA	PRIMI	Breech		Oligohydramnios	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
7	B/o. Murugalakshmi	34-36	M	21	2.2	AGA	MULTI	LN			NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	death	asphyxia/RDS
8	B/o. Mahalakshmi	34	F	25	1.795	SGA	MULTI	LSCS	Eclampsia	PIH/ Eclampsia	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
9	B/o. Chermakani	34-36	M	20	2.34	AGA	PRIMI	LN		PIH	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
10	B/o. Avudayammal	34-36	F	22	1.95	SGA	PRIMI	LN		Oligohydramnios	YES	NO	NO	YES	NO	NO	NO	NO	YES	YES	NO	YES	death	sepsis
11	B/o. Sinduja	34-36	F	24	1.89	SGA	PRIMI	LN		Anemia	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES	Discharged	
12	B/o. Lakshmi	34-36	M	23	2.2	AGA	MULTI	LSCS	PreLSCS/C PD		NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
13	B/o. Mariammal	36	F	30	2.74	LGA	MULTI	LSCS	Prev LSCS/GDM	GDM/polyhydra mnios	NO	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	Discharged	
14	B/o. Ramya	34-36	M	25	2.28	AGA	PRIMI	LSCS	Fetaldistress	Oligohydramnios	NO	YES	NO	YES	YES	YES	NO	YES	YES	NO	NO	NO	death	birthasphyxia
15	B/o. Sindurarani	34-36	F	26	2.1	AGA	PRIMI	Forceps		PPROM	YES	NO	YES	YES	NO	NO	NO	NO	YES	YES	NO	NO	Discharged	
16	B/o. Mary	34-36	F	21	2.2	AGA	MULTI	LN		PPROM	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	Discharged	
17	B/o. Paliniammal	34	M	23	1.39	SGA	PRIMI	LSCS	PIH /twin Pregnancy	PIH /twin Pregnancy	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	Discharged	
18	B/o. Kaliasammal	34-36	M	23	1.65	SGA	PRIMI	LSCS	PIH /twin Pregnancy	PIH /twin Pregnancy	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
19	B/o. Devayani	34-36	F	22	2.1	AGA	PRIMI	LSCS	PPROM	PPROM	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
20	B/o. Thangamari	34-36	M	25	2.2	AGA	MULTI	LSCS	PIH/Eclampsia	PIH/Eclampsia	NO	YES	YES	YES	YES	YES	NO	YES	YES	NO	NO	YES	death	birth asphyxia
21	B/o. Sreedevi	34-36	F	23	2.3	AGA	PRIMI	LN		PIH/PROM	NO	NO	NO	YES	YES	YES	NO	YES	YES	YES	NO	YES	death	sepsis
22	B/o. Mohsin Fathima	34-36	M	29	2.72	LGA	MULTI	LSCS	GDM/PPROM	GDM/PPROM	NO	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	Discharged	
23	B/o. Thenmozhi	34-36	M	30	1.98	SGA	PRIMI	LN			NO	NO	NO	YES										

Sl.NO	Name	Gestat ional Age	Sex	Maternal Age	Birth Weigh t	SGA / LGA / AGA	Parity	Mode of Delivery	Indication for LSCS	Maternal Risk actors	Steroids	Birth Asphyxia	Hypogly cemia	Hyperbilir ubinemia	Respiratory Distress	Oxygen Administra tion	Surfactant	Ventilla tion	Probable Sepsis	Sepsis Culture Positive	Apnea	Feeding Difficulty problem	Dischargedd/ Death	Cause of Death
1	B/o. Seetha	34	M	22	2kg	AGA	PRIMI	LN		Multiple pregnancy	YES	NO	NO	YES	YES	YES	NO	NO	YES	NO	NO	YES	Discharged	
2	B/o. Seetha	34-36	F	22	2.13	AGA	PRIMI	LN		Multiple pregnancy	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
3	B/o. Arul lakshmi	34-36	M	20	2kg	AGA	PRIMI	LN		PIH		NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
4	B/o. Rajeswari	34	M	36	1.93	SGA	MULTI	LN		Elderly PRIMI	YES	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO	Discharged	
5	B/o. Shanthi	34-36	F	25	1.98	SGA	PRIMI	LSCS	PPROM	PPROM	YES	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	Discharged	
6	B/o. Sakunthala	34-36	F	20	2.3	AGA	PRIMI	Breech		Oligohydramnios	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
7	B/o. Murugalakshmi	34-36	M	21	2.2	AGA	MULTI	LN			NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	death	asphyxia/RDS
8	B/o. Mahalakshmi	34	F	25	1.795	SGA	MULTI	LSCS	Eclampsia	PIH/ Eclampsia	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
9	B/o. Chermakani	34-36	M	20	2.34	AGA	PRIMI	LN		PIH	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
10	B/o. Avudayammal	34-36	F	22	1.95	SGA	PRIMI	LN		Oligohydramnios	YES	NO	NO	YES	NO	NO	NO	NO	YES	YES	NO	YES	death	sepsis
11	B/o. Sinduja	34-36	F	24	1.89	SGA	PRIMI	LN		Anemia	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES	Discharged	
12	B/o. Lakshmi	34-36	M	23	2.2	AGA	MULTI	LSCS	PreLSCS/C PD		NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
13	B/o. Mariammal	36	F	30	2.74	LGA	MULTI	LSCS	Prev LSCS/GDM	GDM/polyhydra mnios	NO	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	Discharged	
14	B/o. Ramya	34-36	M	25	2.28	AGA	PRIMI	LSCS	Fetaldistress	Oligohydramnios	NO	YES	NO	YES	YES	YES	NO	YES	YES	NO	NO	NO	death	birthasphyxia
15	B/o. Sindurarani	34-36	F	26	2.1	AGA	PRIMI	Forceps		PPROM	YES	NO	YES	YES	NO	NO	NO	NO	YES	YES	NO	NO	Discharged	
16	B/o. Mary	34-36	F	21	2.2	AGA	MULTI	LN		PPROM	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	Discharged	
17	B/o. Paliniammal	34	M	23	1.39	SGA	PRIMI	LSCS	PIH /twin Pregnancy	PIH /twin Pregnancy	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	Discharged	
18	B/o. Kaliasmmal	34-36	M	23	1.65	SGA	PRIMI	LSCS	PIH /twin Pregnancy	PIH /twin Pregnancy	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
19	B/o. Devayani	34-36	F	22	2.1	AGA	PRIMI	LSCS	PPROM	PPROM	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
20	B/o. Thangamari	34-36	M	25	2.2	AGA	MULTI	LSCS	PIH/Eclampsia	PIH/Eclampsia	NO	YES	YES	YES	YES	YES	NO	YES	YES	NO	NO	YES	death	birth asphyxia
21	B/o. Sreedevi	34-36	F	23	2.3	AGA	PRIMI	LN		PIH/PROM	NO	NO	NO	YES	YES	YES	NO	YES	YES	YES	NO	YES	death	sepsis
22	B/o. Mohsin Fathima	34-36	M	29	2.72	LGA	MULTI	LSCS	GDM/PPROM	GDM/PPROM	NO	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	Discharged	
23	B/o. Thenmozhi	34-36	M	30	1.98	SGA	PRIMI	LN			NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
24	B/o. Annalakshmi	34-36	F	33	1.7	SGA	MULTI	LSCS	PreLSCS/C PD	PPROM	NO	NO	NO	YES	NO	NO	NO	YES	YES	YES	NO	YES	death	sepsis
25	B/o. Kasthuri	34-36	M	30	2.6	LGA	MULTI	LSCS	PreLSCS/C PD		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	



26	B/o. Gandimathi	34-36	F	21	2.16	AGA	PRIMI	LSCS	PIH	PIH	YES	NO	NO	YES	YES	YES	YES	NO	YES	NO	NO	YES	Discharged	
27	B/o. Parvathy	34	M	25	1.39	SGA	PRIMI	LSCS	PIH /twin Pregnancy	PIH /twin Pregnancy	YES	NO	NO	YES	YES	YES	YES	NO	NO	NO	NO	YES	Discharged	
28	B/o. Velammal	34-36	M	25	1.8	SGA	PRIMI	LSCS	PIH /twin Pregnancy	pih/twins	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
29	B/o. Latha	34-36	F	22	1.815	SGA	MULTI	LN		Anemia	NO	NO	YES	YES	NO	NO	NO	NO	YES	YES	NO	YES	Discharged	
30	B/o. Jeyaprabha	34-36	M	28	2.45	AGA	MULTI	LSCS	Prev LSCS/Electi	GDM	NO	NO	NO	YES	YES	YES	YES	NO	NO	NO	NO	YES	Discharged	
31	B/o. Indumathi	34-36	M	21	2.24	AGA	PRIMI	LSCS	PIH	PIH	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	YES	YES	death	RDS
32	B/o. Krishnaveni	34-36	F	22	2.14	AGA	PRIMI	LN		oligohydramnios	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	Discharged	
33	B/o. Umamaheswari	34-36	M	25	2.26	AGA	PRIMI	LSCS	PPROM	PPROM	NO	NO	NO	YES	NO	NO	NO	NO	YES	YES	YES	YES	death	sepsis
34	B/o. Sangeetha	34-36	M	22	1.67	SGA	PRIMI	LSCS	AP eclampsia	APeclampsia	NO	NO	NO	NO	YES	YES	YES	NO	NO	NO	NO	YES	death	RDS
35	B/o. Anandi	34-36	F	23	2.17	AGA	PRIMI	LSCS	PPROM	PPROM	YES	YES	NO	YES	YES	YES	YES	NO	NO	NO	NO	NO	Discharged	
36	B/o. Mariammal	34-36	M	30	2.4	AGA	MULTI	LSCS	Elective		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
37	B/o.Bhagavathi	34-36	F	32	2.34	AGA	PRIMI	LSCS	APH	APH	NO	YES	NO	YES	YES	YES	NO	NO	NO	NO	NO	YES	death	perinatal asphyxia
38	B/o. Indrani	34-36	M	33	1.85	SGA	PRIMI	LSCS	PPROM	PPROM	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
39	B/o. Rajalakshmi	34-36	F	25	2.15	AGA	MULTI	LSCS	PreLSCS/C PD	anemia	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	Discharged	
40	B/o. Parameswari	34-36	F	27	2.25	AGA	MULTI	LSCS	APH/placenta previa	APH/placenta previa	NO	YES	NO	NO	YES	YES	YES	YES	NO	NO	YES	YES	death	asphyxia
41	B/o. Kalaiselvi	34-36	F	20	1.46	SGA	MULTI	LSCS	PIH/Fetal distress	PIH	YES	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	death	RDS
42	B/o. Lakshmi	34-36	F	25	2.1	AGA	PRIMI	LN		PPROM	YES	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	Discharged	
43	B/o. Mahadevi	34-36	M	22	1.81	SGA	PRIMI	LSCS	AP eclampsia	AP eclampsia	NO	NO	NO	YES	YES	YES	NO	NO	YES	NO	NO	YES	Discharged	
44	B/o. Kirthika	34-36	F	26	2.35	AGA	PRIMI	LSCS	Malpresentation		NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
45	B/o. Esakiammal	34-36	M	25	2.23	AGA	PRIMI	LN		PPROM	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
46	B/o. Guruvammal	34	F	21	1.5	SGA	PRIMI	LSCS	Preeclampsia/Oligohydr	Preeclampsia/Oligohydramnios	YES	NO	YES	YES	YES	YES	NO	NO	NO	NO	NO	YES	Discharged	
47	B/o. Gayathri	34-36	F	29	2.45	AGA	MULTI	LSCS	Prev LSCS	GDM/polyhydramnios	NO	NO	YES	YES	YES	YES	NO	NO	NO	NO	NO	YES	Discharged	
48	B/o.Mariammal	34-36	F	23	2.31	AGA	MULTI	LSCS	APH/placenta previa	APH/placenta previa	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	Discharged	
49	B/o. Ramalakshmi	34-36	F	25	1.98	SGA	PRIMI	LSCS	APH/placenta previa	APH/placenta previa	NO	YES	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	Discharged	
50	B/o. Shanthi	34-36	F	21	1.56	SGA	PRIMI	LSCS	Preeclampsia	Preeclampsia	NO	NO	NO	YES	YES	YES	NO	NO	YES	NO	NO	YES	Discharged	
51	B/o. Revathy	34-36	M	25	1.87	SGA	PRIMI	LSCS	PPROM	PPROM	YES	NO	NO	YES	NO	NO	NO	NO	YES	YES	NO	YES	Discharged	
52	B/o. Velankanni	36	M	29	2.73	LGA	MULTI	LSCS	PrevLSCS/PPROM	PPROM	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	

53	B/o. Thamarai	34-36	M	23	2.24	AGA	PRIMI	LSCS	APH/placenta previa	APH/placentaprevia	NO	YES	NO	YES	YES	YES	YES	NO	NO	NO	YES	YES	Discharged	
54	B/o. Chandrika	34-36	F	22	2.14	AGA	PRIMI	LN		Anemia	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO	NO	NO	Discharged	
55	B/o. Rajasree	34-36	M	26	2.45	AGA	MULTI	Breech			NO	NO	NO	YES	NO	NO	NO	NO		NO	NO	NO	Discharged	
56	B/o. Sermakani	34-36wks	F	25	1.76	SGA	PRIMI	LSCS	PIH/Oligohydramnios	PIH/Oligohydramnios	NO	YES	NO	YES	YES	YES	NO	YES	YES	YES	YES	YES	death	sepsis
57	B/o. Bhuvaneswari	34-36wks	M	22	2.27	AGA	PRIMI	LSCS	Malpresentation		NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES	Discharged	
58	B/o. Karthika	34-36	F	27	2.67	LGA	MULTI	LSCS	PreLSCS/C PD		NO	NO	NO	NO	YES	YES	YES	YES	NO	NO	YES	YES	death	RDS
59	B/o. tamil selvi	34	M	25	1.58	SGA	PRIMI	LN		Anemia/Oligohydramnios	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	Discharged	
60	b/o narayani	34-36	F	25	2.35	AGA	MULTI	LN		PPROM	NO	NO	NO	YES	NO		NO	NO	NO	NO	NO	NO	Discharged	
61	B/o. Esakiammal	34-36	M	20	1.85	SGA	PRIMI	LSCS	AP eclampsia	AP eclampsia	NO	YES	NO	NO	YES	YES	YES	YES	NO	NO	YES	YES	death	asphyxia/RDS
62	B/o. Poomari	34-36	F	36	2.57	LGA	MULTI	LSCS	PreLSCS/C PD		YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
63	B/o. Dhanalakshmi	34-36	M	18	1.5	SGA	MULTI	LSCS	PIH/Oligohydramnios	PIH/Oligohydramnios	YES	NO	NO	NO	NO	YES	NO	YES	YES	YES	YES	YES	death	sepsis
64	B/o. Jayaselvi	34-36	M	27	2.12	AGA	MULTI	LN		Anemia/Oligohydramnios	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
65	B/o. Elizebeth	34-36	F	26	2.65	LGA	MULTI	LSCS	PreLSCS/C PD	PPROM	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
66	B/o. Selvamayil	34-36	F	27	2.65	LGA	PRIMI	LSCS	Fetal distress		NO	YES	NO	YES	YES	YES	NO	YES	NO	NO	NO	YES	Discharged	
67	B/o. Poorneswari	34	M	22	2.26	AGA	MULTI	LSCS	PIH/Failed induction		NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
68	B/o.Rajammal	34	F	30	1.73	SGA	PRIMI	LSCS	Oligohydramnios	Oligohydramnios	YES	NO	NO	NO	YES	YES	YES	YES	NO	NO	YES	YES	death	RDS
69	B/o. Senthurdevi	34-36	M	27	1.8	SGA	PRIMI	LSCS	PPROM/Failed	PPROM	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	Discharged	
70	B/o. Paliniammal	34-36	F	25	1.9	SGA	PRIMI	LSCS	MULTIple pregnancy	MULTIple pregnancy	YES	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	YES	Discharged	
71	B/o. Paliniammal	34	F	25	1.56	SGA	PRIMI	LSCS	MULTIple pregnancy	MULTIple pregnancy	YES	NO	NO		NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
72	B/o. Murugeswari	34	M	19	1.45	SGA	PRIMI	LSCS	Preeclampsia	Preeclampsia	YES	NO	NO	YES	YES	YES	NO	NO	NO	NO	YES	YES	Discharged	
73	B/o. Anandamayi	34-36	M	22	2.2	AGA	PRIMI	LSCS	PPROM/Failed	PPROM	YES	NO	NO	YES	NO	NO	NO	NO	YES	YES	NO	NO	Discharged	
74	B/o. Ulagammal	34-36	F	25	2.06	SGA	PRIMI	LN		PPROM	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	Discharged	
75	B/o. Gnanasundari	34-36	M	29	2.6	LGA	MULTI	LSCS	PrevLSCS	GDM	NO	NO	NO	YES	YES	YES	YES	NO	NO	NO	NO	YES	Discharged	
76	B/o. Kaniammal	34-36	F	22	2.27	AGA	PRIMI	LSCS	PIH/Failed induction	PIH	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
77	B/o. Vigneswari	34-36	M	25	2.45	AGA	PRIMI	LSCS	Fetal distress		NO	YES	NO	NO	YES	YES	NO	YES	NO	NO	YES	YES	Discharged	
78	B/o. Sinduradevi	34-36	M	27	2.37	AGA	MULTI	LSCS	Malpresntation		NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged	
79	B/o. Karthika	34-36	M	24	2.49	AGA	PRIMI	LN	PPROM		NO	NO	NO	YES	YES	YES	YES	NO	NO	NO	NO	YES	Discharged	

80	B/o. Sethulakshmi	34-36	F	25	2.5	AGA	MULTI	LSCS	PreLSCS/C PD	PPROM	NO	NO	NO	YES	YES	YES	NO	NO	YES	NO	NO	NO	Discharged		
81	B/o. Maheswari	34-36	F	26	2.3	AGA	MULTI	LN			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged		
82	B/o. Perachi	34-36	F	27	2.25	AGA	MULTI	LSCS	PreLSCS /CPD/electi		NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged		
83	B/o. Gowri	34-36	M	25	1.97	SGA	MULTI	LN		Anemia/Oligohyd ramnios	YES	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES	Discharged		
84	B/o. Kavitha	34-36	F	30	2.55	LGA	PRIMI	LSCS	PPROM	PPROM	YES	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	Discharged		
85	B/o. Mangala	34-36	M	32	2.7	LGA	MULTI	LSCS	PreLSCS/C PD/elective		NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged		
86	B/o. Ayurlakshmi	34	F	29	2.1	AGA	MULTI	LN			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged		
87	B/o. Elangavathi	34-36	F	22	1.87	SGA	MULTI	LSCS	PIHabrutio n/APH	PIH/abruption/A PH	NO	NO	NO	NO	YES	YES	YES	YES	NO	NO	NO	NO	Discharged		
88	B/o. Velkani	34-36	M	30	2.67	LGA	PRIMI	Forceps		heart disease	NO	YES	NO	YES	YES	YES	NO	NO	YES	YES		YES	Discharged		
89	B/o. Uchimahali	34	F	20	1.9	SGA	PRIMI	LSCS	PPROM/Fet al distress	PPROM/Fetal distress	NO	YES	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO	Discharged		
90	B/o. Thangamarikutty	34-36	F	21	1.6	SGA	PRIMI	LSCS	Impending eclampsia	PIH/Impending eclampsia	YES	NO	NO	YES	YES	YES	NO	NO	NO	NO	YES	YES	Discharged		
91	B/o. Mariammal	34-36	M	30	2.6	LGA	MULTI	LSCS	PreLSCS/C PD inlabor		NO	NO	NO	YES	YES	YES	NO	YES	YES	YES	YES	NO	YES	death	sepsis
92	B/o. Theresa	34	F	25	2.16	AGA	PRIMI	LN		PPROM	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	Discharged		
93	B/o. Seeniammal	34-36	M	24	2.5	AGA	PRIMI	LSCS	Malpresenta tion		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged		
94	B/o. Karthika	34-36	F	26	2.25	AGA	PRIMI	LSCS	Fetal distress		NO	YES	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	Discharged		
95	B/o. Thenmozhi	34-36	M	23	1.95	SGA	PRIMI	LSCS	Fetal distress		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged		
96	B/o. Lakshmi	34-36	F	22	1.8	SGA	PRIMI	LSCS	Oligohydra mnios	Oligohydramnios	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	Discharged		
97	B/o. Sangeetha	34-36	M	27	2.5	AGA	PRIMI	LSCS	APH	APH/abruption	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES	Discharged		
98	B/o. KIAMMAL	34	M	20	1.45	SGA	PRIMI	LSCS	Oligohydra mnios	Oligohydramnios	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES	Discharged		
99	B/o. Esakiammal	34	F	26	1.49	SGA	PRIMI	LSCS	PIH/Oligoh ydramnios	PIH/Oligohydram nios	YES	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	YES	Discharged		
100	B/o. Parvathy	34-36	M	25	1.9	SGA	PRIMI	LSCS	Fetal distress/Olig ohydramnios	Oligohydramnios	NO	YES	NO	NO	YES	YES	YES	YES	YES	YES	NO	NO	YES	death	RDS/asphyxia
101	B/o. Indhu	34-36	F	27	2.45	AGA	MULTI	LN			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	Discharged		
102	B/o. Pitchammal	34-36	M	23	1.95	SGA	PRIMI	LSCS	Preeclamsi a	PIH/Preeclampsia	NO	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	YES	Discharged		
103	B/o. Mariammal	34	F	25	1.4	SGA	PRIMI	LSCS	Oligohydra mnios	Oligohydramnios	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES	Discharged		
104	B/o. Maheswari	34-36	M	32	1.95	SGA	PRIMI	LSCS	PPROM	PPROM	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO	Discharged		
105	B/o. Kalyani	34-36	F	34	1.87	SGA	MULTI	LN	Oligohydra mnios	Oligohydramnios	YES	NO	YES	NO	YES	YES	NO	NO	NO	NO	NO	NO	Discharged		
106	B/o. Sakunthala	34-36	M	27	1.95	SGA	PRIMI	LN			NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	Discharged		

[illegible]

Sl. No	Name	Gestational Age	Sex	Maternal age	Birth weight	AGA/LGA/SGA	Parity	Mode of delivery	Indication for LSCS	Any maternal risk factors	Antenatal steroids	Perinatal asphyxia	Hypoglycaemia	Hyperbilirubinemia	Respiratory Distress	Oxygen administration	Ventilation	Surfactant	Sepsis	Sepsis culture positive	Apnoea	Feeding difficulty	DISCHARGED	Cause of death
131	B/O. Revathy	34	M	22	2.1kg	AGA	MULTI	LSCS	PPROM	PPROM	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
132	B/O.Thambiratty	34-36	M	25	2.6kg	LGA	MULTI	LSCS	PREVIOUS LSCS /CPD	NO	NO	NO	NO	YES	YES	YES	NO	NOT given	No	NO	NO	NO	DISCHARGED	
133	B/O. Esakiammal	34	M	30	1.6kg	SGA	PRIMI	LSCS	PIH/HELLP	PIH/HELLP	NO	NO	NO	YES	YES	YES	NO	NOT given	YES	YES	NO	NO	DISCHARGED	
134	B/O.Jayasheeli	34-36	M	22	2.2kg	AGA	MULTI	ASSISTED BREECH		NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
135	B/O.Avudayammal	34	F	32	2.4kg	AGA	MULTI	LN		ANAEMIA	NO	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
136	B/O.Suchithra	34-36	M	20	2.13kg	AGA	MULTI	OUTLET FORCEPS		RHD	NO	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
137	B/O.Velammal	34	F	25	2.18kg	AGA	MULTI	LN		PPROM/OLIGO HYDRAMNIOS	YES	NO	NO	NO	YES	YES	YES	Given	YES	NO	YES	YES	DEATH	RDS/ IVH
138	B/O.Saranya	34-36	M	24	1.75kg	SGA	MULTI	LSCS	OLIGOHYDRAMNIOS/ FETAL ALARM SIGNAL WITH ABNORMAL DOPPLER	OLIGOHYDRAMNIOS/ ABNORMAL DOPPLER	YES	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
139	B/O.Rani	34	F	23	1.9kg	SGA	PRIMI	LN	PPROM	PPROM	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
140	B/O.Rasathy	34-36	M	34	1.8kg	SGA	MULTI	LSCS	PLACENTAPREVIA/APH	PLACENTAPREVIA/APH	YES	NO	NO	YES	YES	YES	NO	NOT given	YES	NO	NO	YES	DISCHARGED	
141	B/O.Zeenath	34	M	32	2.35kg	AGA	PRIMI	LSCS	MALPRESENTATION	YES	NO	NO	NO	NO	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
142	B/O.Annamariam	34-36	F	21	2.16kg	AGA	MULTI	LN		NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
143	B/O.Prema	34	F	19	1.45kg	SGA	PRIMI	LSCS	SEVERE PIH/ IMPENDING ECLAMPSIA	SEVERE PIH/ IMPENDING ECLAMPSIA	YES(INCOMPLETE DOSE)	NO	NO	YES	YES	YES	YES	Given	YES	NO	NO	YES	DEATH	RDS/SEPSIS
144	B/O.Anusha	36	F	22	2.4kg	AGA	MULTI	LSCS	PREVIOUS LSCS/ CPD IN LABOR	NO	NO	NO	NO	NO	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
145	B/O.Subha	34-36	M	24	2.2kg	AGA	MULTI	LSCS	PREVIOUS LSCS (elective)	NO	NO	NO	NO	NO	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
146	B/O.Vasanthi	34	F	21	2.3kg	AGA	PRIMI	LN		PPROM	YES	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
147	B/O.Gayathri	34-36	M	23	1.78kg	SGA	PRIMI	LSCS	OLIGOHYDRAMNIOS	OLIGOHYDRAMNIOS	YES(INCOMPLETE DOSE)	YES	NO	YES	YES	YES	NO	NOT given	YES	NO	NO	NO	DISCHARGED	
148	B/O.Bharathy	34	F	25	2kg	AGA	MULTI	LN		YES(INCOMPLETE DOSE)	YES	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
149	B/O.Mercy	34-36	M	31	2.56kg	LGA	MULTI	LSCS	PREVIOUS LSCS( ELECTIVE)	NO	NO	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
150	B/O.Anitha	34	F	23	2.3kg	AGA	PRIMI	LSCS	ABRUPTIOPLACENTA/APH	ABRUPTIOPLACENTA/APH	NO	YES	NO	YES	YES	YES	YES	NOT given	YES	YES	YES	YES	DEATH	PERINATAL ASPHYXIA/ SEPSIS/
151	B/O.Gomathy	34-36	F	25	2.5kg	AGA	MULTI	LSCS	PREVIOUS LSCS/ CPD IN LABOR	NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
152	B/O.Reena	34	F	26	2.14kg	AGA	MULTI	LN	NO	NO	NO	NO	NO	NO	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
153	B/O.Jayalakshmi	34-36	M	22	1.5kg	SGA	MULTI	LSCS	SEVERE OLIGOHYDRAMNIOS	SEVERE OLIGOHYDRAMNIOS	YES	YES	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
154	B/O.Diya	36	M	23	2.4kg	AGA	MULTI	LN		NO	NO	NO	NO	YES	NO	NO	NO	NOT given	YES	NO	NO	NO	DISCHARGED	
155	B/O.Veena	34	F	30	2.1kg	AGA	PRIMI	ASSISTED BREECH		ANAEMIA	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
156	B/O.Meenakshi	34	F	28	1.97kg	SGA	MULTI	LN		PPROM>24 HRS	YES	NO	YES	YES	YES	YES	YES	NOT given	YES	YES	YES	YES	DEATH	sepsis
157	B/O.Muthu	36	M	25	2.3kg	AGA	PRIMI	LSCS	PPROM / FAILED INDUCTION	PPROM	YES(INCOMPLETE DOSE)	NO	NO	YES	YES	YES	NO	NOT given	YES	NO	NO	YES	DISCHARGED	
158	B/O.Sneha	34-36	F	27	2.15kg	AGA	MULTI	LSCS	PREVIOUS LSCS / PPROM	PPROM	NO	NO	NO	NO	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
159	B/O.Chinnamal	34-36	M	22	2.2kg	AGA	PRIMI	LN		PPROM	YES(INCOMPLETE DOSE)	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
160	B/O.Mariammal	34	M	29	2.6kg	LGA	MULTI	LSCS	GDM/FPD	GDM/POLYHYDRAMNIOS	NO	NO	YES	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
161	B/O.Murugeswari	34-36	F	25	2.4kg	AGA	MULTI	LN		ANAEMIA	NO	NO	NO	YES	NO	NO	NO	NOT given	YES	NO	NO	NO	DISCHARGED	

162	B/O.Indrani	34	F	30	1.67kg	SGA	PRIMI	LSCS	PIH/OLIGOHYDRAMNIOS	PIH/OLIGOHYDRAMNIOS	YES(INCOMPLETE DOSE)	YES	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
163	B/O.Shanthi	34-36	M	21	2.5kg	AGA	PRIMI	LN		NO	NO	NO	NO	NO	YES	YES	YES	NOT given	NO	NO	YES	NO	DEATH	ASPIRATION PNEUMONITIS
164	B/O.Parameswari	34	F	23	2.29kg	AGA	MULTI	LN		ANAEMIA	NO	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
165	B/O.Thangarani	34-36	M	20	2kg	AGA	MULTI	LN		NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
166	B/O.Indiradevi	34	M	36	2.06kg	AGA	MULTI	LN		AGE 36	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
167	B/O.Esakkaiammal	34-36	F	23	2.1kg	AGA	PRIMI	LN		ANAEMIA	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
168	B/O.Bhavani	34	M	24	1.8kg	SGA	PRIMI	LSCS	FETAL DISTRESS / OLIGOHYDRAMNIOS	ANEMIA/ OLIGOHYDRAMNIOS	NO	YES	NO	YES	YES	YES	NO	Given	NO	NO	NO	NO	DISCHARGED	
169	B/O.Esther	34-36	F	25	2.2kg	AGA	MULTI	LN		NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
170	B/O.Ramalakshmi	34	M	29	1.7kg	SGA	MULTI	LN		MULTIPLE PREGNANCY	YES	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
171	B/O. Geetha	34-36	F	28	1.6kg	SGA	MULTI	LN		MULTIPLE PREGNANCY	YES	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
172	B/O.Soumya	34	F	22	1.9kg	SGA	MULTI	LN		NO	NO	NO	NO	NO	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
173	B/O.Chermakani	34-36	M	23	2.2kg	AGA	PRIMI	LSCS	PPROM >12 HRS/ FAILED INDUCTION	PPROM >12 HRS	YES(INCOMPLETE DOSE)	NO	NO	YES	YES	YES	NO	NOT given	YES	NO	NO	YES	DISCHARGED	
174	B/O.Mangai	36	F	25	1.8kg	SGA	PRIMI	LSCS	AP ECLAPSIA	SEVERE PIH/ AP ECLAMPسيا	NO	NO	NO	YES	YES	YES	NO	Given	NO	NO	NO	YES	DISCHARGED	
175	B/O.Sruthy	34	M	25	2kg	AGA	PRIMI	LSCS		CPD IN LABOR	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
176	B/O.Gouthami	34	F	23	2.4kg	AGA	MULTI	LN		ANAEMIA	NO	NO	NO	NO	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
177	B/O.Radha	34-36	M	31	1.56kg	SGA	MULTI	LSCS	SEVERE OLIGOHYDRAMNIOS/ FETAL ALARM SIGNAL	SEVERE OLIGOHYDRAMNIOS	YES(INCOMPLETE DOSE)	NO	NO	YES	YES	YES	YES	Given	YES	YES	YES	YES	DEATH	RDS/SEPSIS
178	B/O.Chandrika	34-36	M	23	2.1kg	AGA	MULTI	LN		NO	NO	NO	NO	NO	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
179	B/O.Reshma	34-36	F	22	1.7kg	SGA	MULTI	LN		MULTIPLE PREGNANCY	YES	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
180	B/O.Remya	34-36	M	27	1.4kg	SGA	MULTI	LN		MULTIPLE PREGNANCY	YES	NO	NO	YES	YES	YES	NO	NOT given	YES	YES	NO	YES	DISCHARGED	
181	B/O.Kasthuri	34	F	25	2.3kg	AGA	PRIMI	LSCS	FETAL DISTRESS	ANAEMIA	NO	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
182	B/O.Meera	34-36	F	21	2.1kg	AGA	MULTI	LN		NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
183	B/O. Maheswari	34-36	M	22	1.67kg	SGA	PRIMI	LSCS	SEVERE PIH	SEVERE PIH	YES(INCOMPLETE DOSE)	NO	NO	YES	YES	YES	NO	Given	YES	NO	NO	YES	DISCHARGED	
184	B/O.Gowri	34	F	29	2kg	AGA	MULTI	LSCS		PREVIOUS LSCS/CPD(ECTIVE)	NO	NO	NO	NO	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
185	B/O Sudalai	34-36	M	25	1.85kg	SGA	PRIMI	LSCS	OLIGOHYDRAMNIOS	OLIGOHYDRAMNIOS	YES(INCOMPLETE DOSE)	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
186	B/O.Shobana	34	F	22	2.45kg	AGA	MULTI	LSCS	PREVIOUS LSCS/PPROM	PPROM	NO	NO	NO	YES	NO	NO	NO	NOT given	YES	NO	NO	NO	DISCHARGED	
187	B/O.Arathy	34-36	F	27	2.4kg	AGA	MULTI	LSCS	PREVIOUSLSCS/ APH	PLACENTA PREVIA/ APH	NO	YES	NO	YES	YES	YES	NO	NOT given	YES	NO	YES	YES	DISCHARGED	
188	B/O Annalakshmi	34-36	M	25	1.9kg	SGA	PRIMI	LSCS	PPROM/FAILED INDUCTION	PPROM	YES(INCOMPLETE DOSE)	NO	NO	YES	NO	NO	NO	NOT given	YES	YES	NO	YES	DISCHARGED	
189	B/O.Dhana	34-36	F	27	1.5kg	SGA	PRIMI	LSCS	SEVERE OLIGOHYDRAMNIOS/ ABNORMAL DOPPLER	OLIGOHYDRAMNIOS	YES	NO	NO	YES	YES	YES	NO	Given	YES	NO	YES	YES	DISCHARGED	
190	B/O.Kaliammal	34-36	M	26	2.35kg	AGA	MULTI	LN		GDM	NO	NO	YES	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
191	B/O Veni	34-36	F	34	2.54kg	AGA	MULTI	LSCS	PREVIOUS LSCS / CPD IN LABOR	NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
192	B/O.Pushplatha	34-36	F	21	1.7kg	SGA	PRIMI	LSCS	SEVERE PIH / OLIGOHYDRAMNIOS	severe pih/oligohydramnios	YES(INCOMPLETE DOSE)	YES	NO	NO	YES	YES	YES	Given	NO	NO	YES	NO	DISCHARGED	

193	B/O.Venkateswari	36	F	30	2.4kg	AGA	MULTI	LN		NO	NO	NO	NO	NO	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
194	B/O.Sathyapriya	34-36	M	26	2.2kg	AGA	MULTI	LN		NO	NO	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
195	B/O.Jennifer	34	M	27	2.15kg	SGA	MULTI	LN		ANAEMIA	NO	NO	NO	YES	NO	NO	NO	NOT given	YES	NO	NO	NO	DISCHARGED	
196	B/O.Sivagami	36	F	21	1.89kg	SGA	PRIMI	LSCS	SEVERE PIH	SEVERE PIH	NO	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
197	B/O.Ulagammal	34-36	F	27	2.5kg	AGA	MULTI	LSCS	PREVIOUS LSCS/PPROM	PPROM	YES(INCO Mplete DOSE)	NO	NO	YES	NO	NO	NO	NOT given	YES	NO	NO	NO	DISCHARGED	
198	B/O.Yuvarani	36	M	24	2.3kg	AGA	MULTI	LN		PREVIOUS PRETERM DELIVERY/PPR OM> 24 HRS	YES(INCO Mplete DOSE)	NO	NO	YES	YES	YES	YES	NOT given	YES	YES	YES	YES	DEATH	SEPSIS/DIVC
199	B/O. Bhuvaneswari	34-36	F	23	2.4kg	AGA	MULTI	LSCS	MALPRESENTATION	NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
200	B/O.Kaveri	34	M	26	2.1kg	AGA	MULTI	LN		ANEMIA/OLIG OHYDRAMNIO S	YES(INCO Mplete DOSE)	NO	NO	NO	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
201	B/O.Mahalakshmi	34-36	F	25	2.5kg	AGA	MULTI	LN		NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
202	B/O.Kanmani	34	M	22	2.35kg	AGA	PRIMI	LSCS	PIH/ABRUPTIO PLACENTA	PIH/ ABRUPTIO PLACENTA/AP H	NO	YES	NO	NO	YES	YES	YES	NOT given	NO	NO	YES	YES	DEATH	PERINATAL ASPHYXIA
203	B/O.Pappu	34-36	F	24	2kg	AGA	MULTI	LSCS	PREVIOUS LSCS/ CPD IN LABOR	OLIGOHYDRA MNIO S	NO	NO	NO	YES	NO	NO	NO	NOT given	YES	NO	NO	NO	DISCHARGED	
204	B/O.Poornima	34	M	25	2.2kg	AGA	MULTI	LN		NO	NO	NO	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
205	B/O.Vijayalakshmi	36	F	20	1.35kg	SGA	PRIMI	LSCS	SEVERE PIH/ PREECLAMP SIA	SEVERE PIH/ PREECLAMP SIA	YES	NO	NO	YES	YES	YES	YES	Given	YES	YES	NO	YES	DEATH	RDS/ SEPSIS
206	B/O.Muniammal	34	F	25	2kg	AGA	PRIMI	LSCS	PPROM	PPROM	YES(INCO Mplete DOSE)	NO	NO	YES	YES	YES	NO	NOT given	YES	YES	NO	YES	DISCHARGED	
207	B/O.Ratnakumari	34-36	M	27	2.2kg	AGA	MULTI	ASSISTED BREECH		NO	NO	NO	NO	NO	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
208	B/O.Krishnammal	34-36	M	25	2.4kg	AGA	MULTI	LSCS	FETAL DISTRESS/MSAF	ANAEMIA	NO	YES	NO	YES	YES	YES	NO	NOT given	NO	NO	NO	YES	DISCHARGED	
209	B/O.Utchimahali	34-36	F	24	2.25kg	AGA	MULTI	LN		NO	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	
210	B/O.Chandana	34-36	M	24	2.3kg	AGA	PRIMI	LSCS	PPROM/ CPD	PPROM> 12 HRS	NO	NO	NO	YES	NO	NO	NO	NOT given	NO	NO	NO	NO	DISCHARGED	





39	Term	2.7	F	AGA	primi	LSCS	Fetal distress	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
40	Term	2.6	M	AGA	multi	LN		No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	Discharged	
41	Term	3.35	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
42	Term	3.5	F	AGA	primi	LSCS	Failed induction	No	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	
43	Term	3.7	M	AGA	primi	LSCS	CPD	Yes	No	No	No	No	No	No	No	No	No	No	No	Discharged	
44	Term	3.56	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
45	Term	3.2	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
46	Term	4.1	F	LGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
47	Term	3.3	M	AGA	multi	LSCS	Elective	No	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	
48	Term	3.9	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
49	Term	3.75	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
50	Term	3.25	M	AGA	primi	forceps		Yes	No	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	death	asphyxia
51	Term	3.35	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
52	Term	3.1	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
53	Term	2.6	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
54	Term	2.75	M	AGA	primi	LN		Yes	No	No	No	No	No	No	No	Yes	No	No	No	Discharged	
55	Term	2.2	F	SGA	multi	LN		No	No	Yes	No	No	No	No	No	No	No	No	No	Discharged	
56	Term	2.45	F	SGA	primi	LSCS	PIH	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
57	Term	2.3	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
58	Term	2.75	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
59	Term	2.15	M	SGA	primi	LSCS	PIH/Oligohydramnios	No	No	Yes	Yes	No	No	No	No	No	No	No	No	Discharged	
60	Term	2.9	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	
61	Term	2.5	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
62	Term	2.65	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
63	Term	2.2	M	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
64	Term	2.4	F	SGA	primi	LSCS	PIH	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
65	Term	2.35	F	SGA	primi	LSCS	PIH	No	No	No	No	Yes	Yes	No	No	No	No	No	No	Discharged	
66	Term	2.9	M	AGA	primi	LSCS	Failed induction	No	No	No	No	Yes	Yes	No	No	No	No	No	No	Discharged	
67	Term	3.7	F	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
68	Term	3.2	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
69	Term	2.1	M	SGA	multi	breech		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
70	Term	2.05	F	SGA	multi	LN		No	No	Yes	No	No	No	No	No	No	No	No	No	Discharged	
71	Term	2.6	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
72	Term	2.7	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	Yes	No	No	No	Discharged	
73	Term	2.9	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
74	Term	2.15	M	SGA	primi	LSCS	Oligohydramnios	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
75	Term	2.8	F	AGA	primi	LSCS	MRO/failedinduction	Yes	No	No	No	No	No	No	No	No	No	No	No	Discharged	
76	Term	3.8	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	
77	Term	3.5	F	AGA	multi	LN		No	No	No	No	Yes	Yes	No	No	No	No	No	No	Discharged	
78	Term	3.7	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
79	Term	3.1	M	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
80	Term	3.9	M	AGA	primi	LSCS	CPD	Yes	No	No	No	No	No	No	No	No	No	No	No	Discharged	
81	Term	3.25	F	AGA	primi	LN		No	No	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	death	sepsis
82	Term	3.75	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	

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128	Term	3.25	M	AGA	multi	LSCS	Failed induction	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
129	Term	1.85	M	SGA	primi	LN		Yes	No	No	No	Yes	Yes	No	No	No	No	No	No	Discharged	
130	Term	2.65	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Yes	Discharged	
131	Term	2.45	M	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
132	Term	2.3	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
133	Term	2.15	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
134	Term	1.9	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
135	Term	2.6	F	AGA	multi	LSCS	Malpresentation	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
136	Term	2.9	M	AGA	multi	LSCS	Failed induction	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
137	Term	3.9	F	AGA	multi	LSCS	Fetal distress	Yes	No	No	Yes	Yes	Yes	No	No	No	No	No	Yes	Discharged	
138	Term	4.2	M	LGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
139	Term	3.2	M	AGA	primi	LSCS	Malpresentation	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
140	Term	3.7	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
141	Term	3.1	F	AGA	primi	LSCS	Obstructed labor	Yes	No	No	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	death	asphyxia/MSAF
142	Term	2.15	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
143	Term	2.7	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
144	Term	2.3	F	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
145	Term	2.75	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
146	Term	2.9	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
147	Term	3	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
148	Term	2.75	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
149	Term	3.8	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
150	Term	3.6	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
151	Term	4.3	F	LGA	multi	LSCS	GDM / polyhydramnios	Yes	No	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	death	asphyxia/mas
152	Term	2.8	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
153	Term	2.75	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
154	Term	2.9	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
155	Term	2.8	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
156	Term	2.75	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
157	Term	2.25	F	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
158	Term	2	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
159	Term	4.1	M	LGA	primi	LSCS	GDM / polyhydramnios	No	No	No	No	Yes	Yes	No	No	No	No	No	Yes	Discharged	
160	Term	3.4	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
161	Term	3.3	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
162	Term	3.5	F	AGA	primi	LSCS	CPD	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
163	Term	2.7	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
164	Term	3.8	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
165	Term	3.25	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
166	Term	3.8	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
167	Term	3.25	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
168	Term	2.8	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
169	Term	2.1	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
170	Term	2.9	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
171	Term	3.25	M	AGA	multi	LSCS	Previous LSCS in labor	Yes	No	No	No	No	No	No	No	No	No	No	No	Discharged	

172	Term	3.4	M	AGA	multi	LSCS	APH	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
173	Term	3.6	F	AGA	primi	LSCS	Fetal distress	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
174	Term	2.7	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
175	Term	2.3	F	SGA	primi	breech		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
176	Term	1.8	M	SGA	primi	LN		Yes	No	No	No	Yes	Yes	No	No	Yes	Yes	No	Yes	Discharged	
177	Term	1.9	F	SGA	multi	LN		No	No	No	Yes	No	No	No	No	Yes	Yes	No	No	Discharged	
178	Term	2.7	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
179	Term	2.85	M	AGA	primi	LSCS	Failed induction	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
180	Term	2.75	F	AGA	primi	forceps		Yes	No	No	No	No	No	No	No	No	No	No	No	Discharged	
181	Term	2.6	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
182	Term	3.45	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
183	Term	3.8	F	AGA	primi	LSCS	MSAF	Yes	No	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Discharged	
184	Term	3.45	F	AGA	primi	LSCS	CPD	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
185	Term	3.8	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
186	Term	3.9	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
187	Term	4.2	M	LGA	primi	LSCS	CPD	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
188	Term	3.1	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
189	Term	2.5	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
190	Term	2.75	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
191	Term	2.15	F	SGA	primi	LN		No	No	Yes	No	No	No	No	No	Yes	Yes	No	No	Discharged	
192	Term	3.3	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
193	Term	3.25	M	AGA	primi	LN		Yes	No	No	No	No	No	No	No	No	No	No	No	Discharged	
194	Term	3.9	F	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
195	Term	3.56	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
196	Term	3.75	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
197	Term	2.3	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
198	Term	2.45	F	SGA	multi	breech		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
199	Term	2.9	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
200	Term	3.65		AGA	primi	vaccum		Yes	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	
201	Term	4.1	M	LGA	primi	LSCS	CPD	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
202	Term	2.1	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
203	Term	2.75	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
204	Term	2.35	M	SGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
205	Term	2.9	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
206	Term	3	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
207	Term	3.2	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
208	Term	1.5	F	SGA	primi	LSCS	PIH/Oligohydramnios	Yes	No	No	Yes	Yes	Yes	No	No	Yes	No	No	Yes	Discharged	
209	Term	1.98	M	SGA	primi	LN		No	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	
210	Term	1.8	M	SGA	primi	LN		No	No	No	No	No	No	No	No	Yes	Yes	No	No	Discharged	
211	Term	2.65	F	AGA	multi	LN		No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	death	aspiration
212	Term	2.2	F	SGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
213	Term	2.1	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
214	Term	2.3	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
215	Term	2.5	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
216	Term	3.6	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
217	Term	3.9	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
218	Term	3.3	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
219	Term	3.25		AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
220	Term	3.75	M	AGA	primi	forceps		Yes	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	

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509	Term	2.1	M	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
510	Term	2.9	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
511	Term	3	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
512	Term	3.3	F	AGA	multi	LSCS	MSAF	Yes	No	No	No	Yes	Yes	No	No	No	No	No	Yes	Discharged	
513	Term	2.3	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
514	Term	2.4	F	SGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
515	Term	2.8	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
516	Term	3.1	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
517	Term	3.25	M	AGA	multi	LSCS	MSAF	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
518	Term	3.8	F	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
519	Term	3.5	M	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
520	Term	3.75	M	AGA	primi	LSCS	Obstructed labor	Yes	No	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Discharged	
521	Term	3.25	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
522	Term	3.5	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
523	Term	2.95	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
524	Term	2.6	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
525	Term	2.75	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
526	Term	2.15	F	SGA	multi	LN		Yes	No	Yes	No	No	No	No	No	Yes	No	No	No	Discharged	
527	Term	3.5	F	AGA	multi	LSCS	APH	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
528	Term	3.15	F	AGA	multi	LSCS	Failed induction	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
529	Term	2.5	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
530	Term	2.7	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
531	Term	2.9	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
532	Term	3.8	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
533	Term	2.35	M	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
534	Term	2	F	SGA	primi	LSCS	PIH/Oligohydramnios	No	No	No	No	Yes	Yes	No	No	Yes	No	No	Yes	Discharged	
535	Term	3.1	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
536	Term	3.25	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
537	Term	2.3	F	SGA	multi	LN		Yes	No	No	No	No	No	No	No	No	No	No	No	Discharged	
538	Term	2.15	M	SGA	primi	LSCS	PIH	No	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	
539	Term	3.1	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
540	Term	2.1	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
541	Term	2.85	M	AGA	multi	LSCS	post dated /Failed induction	Yes	No	No	No	Yes	Yes	Yes	No	Yes	No	No	Yes	death	asphyxia/mas/sepsis
542	Term	3.56	F	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
543	Term	3.6	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
544	Term	3.2	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
545	Term	3	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
546	Term	2.75	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
547	Term	2.2	F	SGA	primi	LSCS	Oligohydramnios	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
548	Term	2.35	M	SGA	primi	LSCS	PROM	No	No	No	No	No	No	No	No	Yes	No	No	No	Discharged	
549	Term	2.5	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
550	Term	3.25	F	AGA	primi	forceps		Yes	No	No	No	Yes	Yes	No	No	Yes	No	No	No	Discharged	
551	Term	2.6	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
552	Term	3.3	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
553	Term	3.1	M	AGA	multi	LN		No	No	No	Yes	Yes	Yes	Yes	No	No	No	No	No	death	aspiration
554	Term	2.5	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
555	Term	3.25	M	AGA	multi	LSCS	PROM	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	death	sepsi/divc

556	Term	2.3	F	SGA	primi	LSCS	Oligohydramnios	No	No	No	No	No	No	No	No	Yes	No	No	No	Discharged	
557	Term	3.5	M	AGA	multi	LSCS	Elective	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
558	Term	3.7	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
559	Term	2.56	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
560	Term	2.4	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
561	Term	3.75	F	AGA	primi	vacuum		No	No	No	Yes	No	No	No	No	Yes	Yes	No	Yes	Discharged	
562	Term	3.4	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
563	Term	3.5	F	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
564	Term	2.45	M	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
565	Term	2.1	F	SGA	primi	LN		No	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	
566	Term	3.1	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
567	Term	2.4	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
568	Term	2.5	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
569	Term	2.3	M	SGA	primi	LSCS	Multiple Pregnancy	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
570	Term	22	F	AGA	primi	LSCS	Multiple Pregnancy	No	No	Yes	Yes	No	No	No	No	Yes	No	No	No	Discharged	
571	Term	3.6	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
572	Term	3.9	F	AGA	primi	LN		Yes	No	No	No	Yes	Yes	No	No	Yes	No	No	No	Discharged	
573	Term	3.1	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
574	Term	3.7	F	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
575	Term	2.8	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
576	Term	2.75	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
577	Term	2.9	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
578	Term	2	M	SGA	multi	LSCS	PIH/Oligohydramnios	Yes	No	No	No	Yes	Yes	No	No	Yes	Yes	No	Yes	Discharged	
579	Term	3.15	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
580	Term	2.8	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
581	Term	2.1	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
582	Term	2.3	F	SGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
583	Term	2.4	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
584	Term	3.5	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
585	Term	3.8	F	AGA	multi	LSCS	Elective	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
586	Term	2.5	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
587	Term	3.3	F	AGA	multi	LSCS	Elective	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
588	Term	3.56	M	AGA	primi	LSCS	PROM/fetaldistress	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Discharged	
589	Term	3.7	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
590	Term	3.2	F	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
591	Term	3.8	M	AGA	multi	LSCS	APH	Yes	No	No	Yes	Yes	Yes	No	No	No	No	No	No	Discharged	
592	Term	3.75	F	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
593	Term	3.1	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
594	Term	2.75	F	AGA	primi	LN		Yes	No	No	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Discharged	
595	Term	2.9	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
596	Term	2.5	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
597	Term	3.5	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
598	Term	3.25	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
599	Term	2.8	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
600	Term	1.8	M		primi	LSCS	Oligohydramnios	No	No	No	Yes	Yes	Yes	No	No	Yes	No	No	Yes	death	sepsis/divc
601	Term	3	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
602	Term	2.4	M	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	

603	Term	2.35	F	SGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
604	Term	3.15	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
605	Term	3.6	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
606	Term	2.9	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
607	Term	3.5	F	AGA	multi	LN		No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	Discharged	
608	Term	2.75	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
609	Term	3.5	F	AGA	primi	LSCS	Failed induction	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
610	Term	2.7	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
611	Term	3.4	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
612	Term	3.1	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
613	Term	3.9	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
614	Term	4.1	F	LGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
615	Term	3.75	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
616	Term	3.4	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
617	Term	2.2	F	SGA	multi	LN		No	No	No	No	No	No	No	No	Yes	No	No	No	Discharged	
618	Term	3.25	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
619	Term	2.3	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
620	Term	3.7	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
621	Term	2.9	F	AGA	multi	LSCS	MRO/failedinduction	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
622	Term	3	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
623	Term	3.6	F	AGA	primi	LSCS	Fetal distress	Yes	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
624	Term	3.2	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
625	Term	3.7	M	AGA	primi	LSCS	PROM/fetaldistress	Yes	No	No	Yes	Yes	Yes	No	No	Yes	No	No	No	Discharged	
626	Term	2.8	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	Yes	Discharged	
627	Term	2.5	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
628	Term	2.75	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
629	Term	3.1	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
630	Term	3.4	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
631	Term	3.8	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
632	Term	3.5	M	AGA	primi	forceps		Yes	No	No	No	Yes	Yes	No	No	Yes	No	No	Yes	Discharged	
633	Term	3.25	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
634	Term	3.75	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
635	Term	3.4	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
636	Term	3.9	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
637	Term	3.3	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
638	Term	2.1	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
639	Term	2.3	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
640	Term	2.5	F	AGA	multi	LN		Yes	No	No	Yes	Yes	Yes	No	No	Yes	No	No	Yes	Discharged	
641	Term	2.65	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
642	Term	3.45	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
643	Term	3.9	M	AGA	primi	LSCS	MSAF	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
644	Term	4.1	M	LGA	primi	LSCS	GDM / polyhydramnios	No	No	Yes	No	No	No	No	No	No	No	No	No	Discharged	
645	Term	2.45	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
646	Term	3.7	F	AGA	primi	LSCS	CPD/Obstructed labor	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	death	asphyxia
647	Term	2.4	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
648	Term	2.3	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
649	Term	2.5	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
650	Term	2.75	M	AGA	primi	LN		Yes	No	No	No	Yes	Yes	No	No	No	No	No	No	Discharged	

651	Term	2.1	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
652	Term	3.2	M	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
653	Term	2.3	F	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
654	Term	2.45	M	SGA	multi	LN		No	No	Yes	Yes	No	No	No	No	Yes	No	No	No	Discharged	
655	Term	1.8	F	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
656	Term	2.85	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
657	Term	2.6	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
658	Term	3.5	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
659	Term	2.9	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
660	Term	2.2	F	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
661	Term	2.5	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
662	Term	2.8	M	AGA	multi	LSCS	GDM / polyhydramnios	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
663	Term	2.1	F	SGA	multi	LSCS	Multiple Pregnancy	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
664	Term	2.5	M	AGA	multi	LSCS	Multiple Pregnancy	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
665	Term	2.8	F	AGA	primi	LSCS	Failed induction	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
666	Term	1.8	M	SGA	primi	LSCS	PIH	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	Discharged	
667	Term	2.4	F	SGA	primi	LSCS		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
668	Term	2.7	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
669	Term	4.2	M	LGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
670	Term	1.9		SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
671	Term	3.2	M	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
672	Term	3.5	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
673	Term	3.7	F	AGA	primi	LN		Yes	No	No	No	Yes	Yes	No	No	Yes	No	No	Yes	Discharged	
674	Term	2.5	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No		Discharged	
675	Term	4	F	LGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
676	Term	3.1	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
677	Term	3.6	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
678	Term	2.6	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
679	Term	2.3	F	SGA	multi	LN		No	No	No	No	Yes	Yes	Yes	No	Yes	No	No	No	death	aspiration
680	Term	2.1	M	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
681	Term	2.5	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
682	Term	2.65	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
683	Term	2.8	M	AGA	multi	LSCS	APH	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
684	Term	2.75	F	AGA	multi	LN		No	No	No	Yes	Yes	Yes	No	No	Yes	No	No	No	Discharged	
685	Term	3.1	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
686	Term	2.45	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
687	Term	3.9	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
688	Term	3.7	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
689	Term	2.6	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
690	Term	2.7	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
691	Term	3.45	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
692	Term	3.2	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
693	Term	3.8	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
694	Term	2.8	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
695	Term	2.3	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	

696	Term	2.4	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
697	Term	2.8	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	Discharged		
698	Term	3.4	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
699	Term	2.7	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
700	Term	3.9	M	AGA	primi	LSCS	GDM	No	No	No	No	No	No	No	No	No	No	No	Discharged		
701	Term	1.75	M	SGA	primi	LSCS	Oligohydramnios	No	No	No	No	No	No	No	No	Yes	Yes	No	Yes	Discharged	
702	Term	2.3	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
703	Term	3.5	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
704	Term	4.1	F	LGA	multi	LSCS	GDM / polyhydramnios	No	No	No	No	No	No	No	No	No	No	No	Discharged		
705	Term	2.2	M	SGA	primi	LN		Yes	No	No	Yes	No	No	No	No	No	No	No	Discharged		
706	Term	3.1	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
707	Term	2.55	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
708	Term	2.9	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
709	Term	3.5	M	AGA	primi	LSCS	Failed induction	Yes	No	No	No	Yes	Yes	No	No	No	No	No	Discharged		
710	Term	2.4	F	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
711	Term	2.1	M	SGA	primi	LSCS	PIH/PROM	No	No	Yes	Yes	No	No	No	No	Yes	No	No	Discharged		
712	Term	3.6	M	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	Discharged		
713	Term	3.2	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
714	Term	3.8	F	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	Discharged		
715	Term	2.75	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
716	Term	3.9	F	AGA	primi	LSCS	Obstructed labor	Yes	No	No	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Discharged	
717	Term	3.1	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
718	Term	2.75	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	Discharged		
719	Term	1.75	F	SGA	primi	LSCS	Severe PIH	No	No	No	No	Yes	Yes	No	No	No	No	No	Discharged		
720	Term	2.4	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
721	Term	1.9	M	SGA	multi	LN		No	No	No	Yes	No	No	No	No	Yes	Yes	No	Discharged		
722	Term	2.4	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
723	Term	2.1	F	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
724	Term	3.8	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	Discharged		
725	Term	3.75	F	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	Discharged		
726	Term	2.6	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
727	Term	2.8	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
728	Term	3.5	F	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	Discharged		
729	Term	3.3	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
730	Term	2.5	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
731	Term	2.1	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
732	Term	2.8	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
733	Term	2.75	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
734	Term	2.45	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
735	Term	2	F	SGA	multi	LSCS	PIH	Yes	No	No	No	Yes	Yes	No	No	Yes	No	No	Discharged		
736	Term	3.45	M	AGA	primi	LSCS	Fetal distress	No	No	No	No	Yes	Yes	No	No	No	No	No	Discharged		
737	Term	3.3	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
738	Term	4	F	LGA	multi	LSCS	Fetal distress	No	No	No	Yes	No	No	No	No	No	No	No	Discharged		
739	Term	3.7	F	AGA	multi	LSCS	Mal presentation	No	No	No	No	No	No	No	No	No	No	No	Discharged		
740	Term	1.8	M	SGA	primi	LN	PIH/PROM	Yes	No	Yes	No	Yes	Yes	No	No	Yes	No	No	Discharged		
741	Term	3.1	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
742	Term	2.9	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
743	Term	3	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		

744	Term	3.56	M	AGA	multi	LSCS	Mal presentation	No	No	No	No	No	No	No	No	No	No	No	No	Discharged
745	Term	1.65	M	SGA	primi	LSCS	Oligohydramnios	No	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Discharged
746	Term	2.7	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged
747	Term	2.9	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
748	Term	2.5	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
749	Term	3	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
750	Term	3.2	F	AGA	primi	LSCS	APH	Yes	No	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	death asphyxia
751	Term	3.9	F	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged
752	Term	2.75	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
753	Term	2.5	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
754	Term	2.1	M	SGA	primi	LSCS	Oligohydramnios	Yes	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged
755	Term	4	F	LGA	multi	LSCS	prevLSCS/gdm	No	No	No	No	No	No	No	No	No	No	No	No	Discharged
756	Term	2.3	F	SGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged
757	Term	1.9	F	SGA	primi	LN		No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No	Discharged
758	Term	2.55	M	AGA	primi	LSCS	PROM	No	No	No	No	No	No	No	No	No	No	No	No	Discharged
759	Term	3.65	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
760	Term	3.2	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
761	Term	2.75	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
762	Term	3.5	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged
763	Term	2.8	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged
764	Term	3	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
765	Term	2.55	M	AGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged
766	Term	2.9	F	AGA	primi	vacuum		Yes	No	No	Yes	Yes	Yes	No	No	Yes	No	No	No	Discharged
767	Term	3.1	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
768	Term	3.7	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged
769	Term	2.8	F	AGA	primi	LSCS		No	No	No	No	Yes	Yes	No	No	No	No	No	No	Discharged
770	Term	3.9	M	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged
771	Term	2.4	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
772	Term	2.1	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
773	Term	2.5	F	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged
774	Term	2.3	M	SGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged
775	Term	3.6	F	AGA	primi	LSCS	CPD in labor	No	No	No	No	No	No	No	No	No	No	No	No	Discharged
776	Term	3.25	M	AGA	primi	LSCS	Fetal distress	Yes	No	No	No	Yes	Yes	No	No	No	No	No	No	Dis



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	827	Term	3.9	F	AGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	Discharged		
	828	Term	4.1	M	LGA	primi	LSCS	CPD	No	No	No	No	No	No	No	No	No	No	No	Discharged		
	829	Term	2.2	F	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
	830	Term	3	M	AGA	multi	breech		Yes	No	No	No	No	No	No	No	No	No	No	Discharged		
	831	Term	2.9	M	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	Discharged		
	832	Term	2.4	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
	833	Term	3.6	M	AGA	primi	LSCS	Fetal distress	No	No	Yes	No	No	No	No	No	No	No	No	Discharged		
	834	Term	3.1	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	Discharged		
	835	Term	2	M	SGA	primi	LSCS	Oligohydramnios	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	death	asphyxia/sepsis
	836	Term	2.8	F	AGA	primi	LSCS	Failed induction	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	837	Term	3	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	838	Term	2.5	F	AGA	primi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
	839	Term	2.1	M	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	840	Term	2.9	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	841	Term	3.4	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	842	Term	2.7	F	AGA	multi	LSCS	MRO/Failed induction	No	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	death	sepsis/divc
	843	Term	2.2	M	SGA	primi	LN		No	No	No	Yes	No	No	No	No	Yes	No	No	No	Discharged	
	844	Term	3.7	M	AGA	primi	LSCS	Prolonged labor	Yes	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	845	Term	1.8	F	SGA	primi	LN		No	No	Yes	No	No	No	No	No	Yes	No	No	No	Discharged	
	846	Term	3.1	M	AGA	primi	LSCS	Failed induction	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	847	Term	2.5	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	848	Term	2.7	M	AGA	primi	LSCS	PROM/Failed induction	No	No	No	No	No	No	No	No	Yes	Yes	No	Yes	Discharged	
	849	Term	4	F	LGA	primi	LSCS	CPD	No	No	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	Discharged	
	850	Term	3.3	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	851	Term	2.7	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	852	Term	3.9	M	AGA	multi	LSCS	MSAF	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
	853	Term	2.4	F	SGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	854	Term	3.5	M	AGA	primi	LN		Yes	No	No	No	Yes	Yes	Yes	No	No	No	No	No	death	asphyxia
	855	Term	2.1	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	856	Term	2.5	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	857	Term	3.5	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	858	Term	2.3	M	SGA	multi	LN		No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
	859	Term	2.2	F	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	860	Term	2.5	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	861	Term	3.7	F	AGA	primi	LN		Yes	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	death	mas/pphn
	862	Term	3.1	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	863	Term	2.9	F	AGA	multi	LSCS	Elective	No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	864	Term	3.2	M	AGA	primi	LSCS	Failed induction	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
	865	Term	2.7	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	866	Term	2.9	M	AGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	867	Term	2.75	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	death	asphyxia
	868	Term	3.3	M	AGA	multi	LSCS	Previous LSCS in labor	No	No	No	Yes	No	No	No	No	No	No	No	No	Discharged	
	869	Term	2.6	F	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	870	Term	2.1	M	SGA	primi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	
	871	Term	2.7	M	AGA	multi	LN		No	No	No	No	No	No	No	No	No	No	No	No	Discharged	

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